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WORLD FOOD SITUATION IN 1945-46

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THE WORLD FOOD SITUATION, 1945-46*

SUMMARY

Production and Supplies

A serious tightening of the general world food situation in 1945-46, - the result of lowered farm production, sharply reduced carry-over stocks of all major food products, and disrupted collection and distribution causing grave deficiency in many urban areas of war-torn countries - is forecast on the basis of a world-wide survey of crop conditions, livestock numbers, and food stocks as of about September 1. While this year's total world farm output of food, in terms of calories, will be only about 3 percent less than the prewar 1935-39 average, when allowance is made for the net increase in world population during the war years, per capita world production will be about 10 percent less.

Sharp reductions in existing supplies of nearly all major food products add to the seriousness of the situation. Supplies of rice, sugar, fats, and oils have fallen somewhat below last year's low levels and much below those of prewar years. Wheat supplies, while larger than the prewar average, have declined to the lowest point in recent years.

These conclusions, which take into consideration probable food supplies for the current year in all areas of the world, are based upon the regular agricultural reports of foreign governments; a special inquiry on the food situation by United States foreign-service officers stationed abroad; and information collected by U.S. officials traveling in countries where the food output has declined most sharply.

Of the various major geographic regions, Continental Europe (excluding U.S.S.R.) and North Africa have experienced the greatest decline in food production. Because of the widespread drought over North Africa and the southern half of Europe and the continued shortages and disruptions resulting from the war, this year's output will be about 15 percent less than that of 1944-45 and may be 25 percent below the prewar average. The decline from prewar in the quantity of food available for consumption, however, has been only about 20 percent, because rigid economies in the processing of food, such as a higher extraction rate of cereals in the manufacture of flour, has increased the quantity of food obtained from a given amount of farm production.

In India and China, where nearly 40 percent of the world's food is produced and consumed, the output this year will be about equal to the prewar average but in Japan and other areas of the Far East, production will be much below that average. In Japan, current production may be nearly as much below its prewar level as in continental Europe, and Japan normally is even more dependent upon food imports than is Europe. In areas under Japanese occupation, production also declined during the war, because of the lack of fertilizers, draft power, and labor, or of outside markets for surplus products.

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* The food production and marketing year varies somewhat from region to region, but in general this report is concerned with the period from about August 1, 1945 until crops from the 1946 harvest become available for consumption.

Food production in the U.S.S.R., the other large area where food output was sharply reduced by the war, will be somewhat larger this year than a year ago, but it will still be considerably under the level of prewar years. Food production for the country as a whole has shown definite improvement in the past 2 years and in 1945-46 was appreciably larger than in 1943-44, when large areas were under German occupation, and when U.S.S.R. supplies were probably at their lowest point for the war period. Not only is Russian food production on the increase, but some supplies now are available from Russian-occupied territories as reparations in kind; whereas during the period of German occupation, part of the food products in Russia were being shipped to Germay and other Axis countries. On the other hand, lend-lease supplies of food will no longer be available.

North and South America are the only major areas where production this year will be much above its prewar level; hence, from the standpoint of available supplies, this area is best situated for exporting food. In North America, production is slightly less than a year ago but is about one-third above the prewar average. Crops for 1945-46 in much of South America--where the seasons are the reverse of those in the United States--are just being planted, but prospects are somewhat better than a year ago, when extensive droughts reduced food production to only about 7 percent more than the prewar average. In 1943-44 South American production was 25 percent above that average.

In the United Kingdom production prospects this year are more favorable than a year ago. Because of the shift to feed grains, however, food output is below the unusually high level reached in 1943, but it is still nearly 40 percent above the prewar average. Food prospects are also favorable in the Middle East. Early indications are that production in this area will be about 10 percent larger than the prewar average, or sufficient to cover domestic needs and to allow for some exportation. . . . .

Nearly all major food products will be in short world supply this year. World wheat production is expected to be about 7 percent less than the prewar average; but total supplies, including carry-over in the major exporting countries, will approximate the prewar average. In view of the large demands upon these supplies, they will be adequate only if the high extraction rates of the war years are maintained and the quantities diverted to livestock feeding are kept to a minimum. World rice production may be no larger than last year's relatively small output, and supplies available in the surplus-producing areas of southeastern Asia will be much below the prewar level.

Sugar production this year will be 13 percent smaller than the prewar average, but slightly larger than last year. Total supplies, however, will be less than in 1945 as operating stocks have been reduced to about minimum levels. The drought in Cuba, the war damage to processing facilities in Europe, the Philippines, Netherlands Indies, and Formosa, together with the shortage of labor and farm supplies, are all factors in the sugar shortage. There is little prospect for improvement in this supply situation this year.

The fats and oils supply has been lowered this year by the sharp decline in hog production in the United States, Canada, and Argentina,

by further reduction in hog numbers in Europe, and by the decline in butter production in the principal producing countries. Now that the surplus vegetable-oil-producing areas of the East Indies and Manchuria have been liberated, however, some relief in the world shortage of fats and oils is in prospect in the near future. Some supplies should be available from these areas soon, and the quantities available will continue to increase during 1946.

Supplies of meat products in 1945-46 will continue to be considerably short of prewar levels but may be slightly larger than last year. Little change in total production of meats is expected in 1945-46. Some increase is anticipated in New Zealand, and Argentina, but this will be about offset by further declines in Canada and Australia. Several of the countries in northwestern Europe are placing great emphasis on expanding livestock herds and increasing the output of animal products. This expansion will be limited during the coming year, however, because of the shortage of feed normally available from the surplus-producing areas of Canada and Argentina and the necessity of using larger-than-normal quantities of feed grains and potatoes for food in Europe. Fish supplies also are much below the prewar level, although the catch in the world's fisheries has been increasing, particularly since VE Day.

World milk production in 1945-46 will be about 5 percent less than in prewar years because of the sharp decline in European output. The consumption of fluid milk and the manufacture of dairy products other than butter, however, will be above the prewar average, whereas the quantity of milk converted to butter is being sharply reduced. Because of the general shortage of competing foods, the demand for dairy products is especially strong, and supplies of manufactured products are substantially smaller than the amounts which would be consumed if supplies were available.

During the war, egg production was sharply increased in the United States and Canada and is now at a high level, but in Europe the production of poultry and eggs has suffered a greater decline than that of any other major product.

Food Shortages in Deficit Areas

The sharp decline in food production this year in those areas which are normally deficit producers greatly increases the requirements for food from all areas where supplies may be spared. The exact extent of these requirements cannot be determined until the size of this year's crops in Europe and North Africa is more definitely known and a more thorough appraisal is made of requirements in the Far East. Even at relatively low levels of consumption, however, the imports required will be much larger than the volume of food which moved through international trade channels in prewar years.

Continental Europe (exclusive of U.S.S.R.) would require approximately 18,000,000 tons of food imports during 1945-46 in order to raise legal nonfarm supplies in liberated countries to 2,000 calories per person per day, permit some increase in imports to the neutral countries, and provide the minimum food supplies necessary to prevent widespread disease and unrest

in the ex-enemy countries. This total should be composed of roughly, 15,000,000 to 16,000,000 tons of wheat (over 500,000,000 bushels), 1,000,000 tons of fats and oils, 750,000 tons of sugar, and substantial quantities of dry legumes, meats, and dairy products.

North Africa, normally a net exporter of food products, will need to import over 2,000,000 tons of grain in order to cover minimum requirements. There will also be a deficit in fats and oils. Sugar requirements of North Africa will have to be met, as usual, by imports.

While the requirements of the Far East this year are not definitely known, they will be much less than in Europe, for the Far East as a whole is normally a net exporter of food products. Because of the sharp decline in output in the surplus-producing regions, however, a serious shortage of cereals is in prospect for the coming year. Net imports of 3,000,000 to 4,000,000 tons of cereals into the area likely would meet minimum needs unless crops should deteriorate. An estimated 2,000,000 tons of food, mainly in the form of wheat and rice, will be required to prevent an acute food shortage in the urban areas of China. India will require over 2,000,000 tons of rice and wheat; and if the early estimate of the rice crop fails to materialize, imports may have to be somewhat larger to avert serious food shortages. Food supplies in Japan will not be sufficient to meet the minimum requirements of that country. The Philippines and Ceylon will need some imports and possibly the Netherlands Indies as well.

These requirements are in addition to those of the other normally deficit-food-producing areas. Despite the high level of food production in the United Kingdom, it will require approximately 5,000,000 tons of wheat, 1,750,000 tons of meat, 1,000,000 tons of oil or equivalent in oil products, close to 1,500,000 tons of sugar, and 300,000 tons of dairy products in order to continue present restricted rations.

Steps Taken to Relieve Shortages

When world food supplies are inadequate to meet normal consumption levels, some control over food distribution is as essential between countries as within countries. Recognizing that serious shortages of food would continue for some time and that food programming would be required, the Allied Nations have continued the joint allocation of foods in short supply. This was done to assure equitable international distribution and to avoid undesirable price disturbances, which, with the present shortage of food, might follow an abrupt abandonment of allocation.

Several surplus-producing countries have continued the food-conserving measures adopted during the war and have taken other steps to make available as much food as possible for export. New Zealand and Australia have continued rationing of dairy products and meats in order to provide larger quantities for export. Denmark and Sweden have taken similar steps to conserve food, and Canada has recently resumed meat rationing in an effort to meet export commitments. As for the United States, President Truman recently has again committed this country to the policy of helping Europe "to the limit of our strength." "This Government," he pointed out, "is bending every effort to find solutions to this problem, in cooperation with the respective claimants, with a view to increasing the flow of urgently needed supplies."

The shortage of shipping apparently will not be a limiting factor in meeting the minimum requirements of the liberated peoples, since the end of hostilities has materially eased the shipping situation. At the present time financing is a pressing problem in the exportation of food from the United States. In a public statement on September 18, Secretary Anderson pointed out that there are only two methods at the present time for financing the use of United States food in liberated countries.

"First," he said, "those countries which have some financial resources may pay for the American food they get by the use of cash credit. Second, those unable to pay may receive aid from UNRRA. If these methods of financing essential food needs are adequate, it would be possible from a purely supply standpoint to provide added quantities of such commodities as many dairy products and meat.

"At the moment, however, the quantities of food allocated to UNRRA are already sufficient to use up all the funds available to it . . .

"At the moment, too, the quantities of food allocated to paying governments cannot be increased substantially because postwar financial arrangements have not been concluded. These arrangements are now being considered by those Departments, principally State and Treasury, having this responsibility for the United States. If they are concluded promptly and in a manner that will enable additional food supplies to be financed, we for our part are prepared to render every possible assistance in seeing that a fair share of the food released by military out-backs is made available."

With the end of hostilities, new arrangements for financing imports must be made by many countries, not only with regard to imports from the United States, but also with regard to supplies from other countries, which heretofore accepted blocked-sterling or other special wartime financing. Countries unable to make such arrangements may receive aid from UNRRA, but such aid is dependent upon further financial support for this organization. International discussions regarding new financial arrangements are now in progress. The time and manner in which they are concluded will, no doubt, have considerable influence on the extent to which food shortages are met in the different countries.

The sources for meeting food shortages during 1945-46 are indicated to some extent by food exports to Allied Countries during the period 1942-44. In this period about one-third of the total exports were from the United States. Canada and Argentina each supplied about one-sixth, and Australia, New Zealand, Brazil, and India supplied most of the remaining third. With the high level of food production in the United States this year, total exports of food in 1945-46, including wheat and flour, may be larger than in 1944-45. These exports will include, in addition to large quantities of wheat, some meat and dairy products and several other foods. Although Canada production of wheat is considerably below that of last year, exports this year will be nearly as large as in 1944-45, when over 350 million bushels of wheat and flour, in terms of wheat, were exported. Exports of meat and dairy products from Canada also will continue to be large, but they may be smaller than in 1944-45. Exports from South America and Australia during 1945-46, at least until the new crops become available, will be much smaller than in the war years, because a severe drought has greatly reduced food production in these areas during the past year.

FOOD SITUATION BY MAJOR GEOGRPAHIC REGIONS

North America

The total farm output of food products in North America in 1945-46 will be about 5 percent less than the record output of 1944-45, but it will be larger than in any other year and about one-third larger than the prewar average. The smaller output of wheat in Canada, pork in Canada and United States, sugar in Cuba, and a general decline in crop output in Mexico account for most of the decline this year.

The total output of nearly all important groups of food products will be smaller in 1945 than in 1944. The smaller wheat crop in Canada and the smaller corn crop in Cuba and Mexico resulted in a smaller output of cereals for food. The decline in Cuban sugar production has more than offset the increase in United States production. Fats and oils production also will be less because of the smaller United States cotton crop, the decline in United States butter production, and the reduced slaughter of hogs in Canada and the United States. Output of fruits and vegetables, including beans and peas, also will be less than in 1944, although there are larger supplies of potatoes and the output of beans and peas will exceed domestic requirements. The sharp decline in the production of pork will be only partially offset by the larger output of beef. Milk production will be somewhat larger than in 1944 and will reach a new all-time high. Butter production will be less than that of last year, but the consumption of fluid milk will reach a new record, and the output of other manufactured dairy products will continue at a high level.

A large part of the food supplies for relief and for feeding deficit producing countries will necessarily be obtained from the countries of North America. Expected exports of possibly 600 to 650,000,000 bushels of wheat will be the biggest factor in meeting these food needs and will further reduce stocks, especially in Canada. In addition to wheat, there will be exports of sugar from Cuba and meat, eggs, and some fats from United States and Canada to offset the acute shortages abroad. The supplies of these products that can be exported from North America, however, even when combined with possible supplies from other areas, will not be sufficient to provide the minimum needs of deficit producing countries.

Canada

Canadian food production in 1945-46 will be considerably less than the record production last year, owing particularly to lower wheat yields, reduced hog slaughterings, and a generally poor fruit crop. However, because of the wheat carry-over from previous years that is still large, sustained dairy production, and increased beef production, Canadians will have sufficient food supplies for domestic food consumption and large exports.

Wheat is the food which Canada will export this year in largest quantities. Production will be smaller than last year, as a result of drought in some parts of the Prairie Provinces, but slightly larger than the prewar (1935-39) output of 312,000,000 bushels. The carry-over of Canadian wheat on July 31, 1945, of 258,000,000 bushels was 100,000,000 bushels less than the 1944 carry-over, but it will still serve as an important reserve upon which Canada

expects to depend for exports this year. Preliminary figures indicate that a total of around 350,000,000 bushels of wheat (including flour in terms of wheat) were exported during the marketing year 1944-45. Even by drawing heavily on reserves, Canada now seems unlikely to be able to export a similar amount this year.

Adverse weather and the reduced carry-over indicate that the grain supplies available for feeding livestock this year will be decidedly less than those of last year. Production of oats, on the basis of September estimates, are expected to be about 110,000,000 bushels less than a year ago, and barley more than 30,000,000 bushels less. The area in rye is almost 25 percent less and that in corn 20 percent less than last year. No official figures are available regarding the acreage of soybeans actually seeded this year, but the area is expected to be smaller than that of 1944-45.

Last year Canada exported between 900,000,000 and 1,000,000,000 pounds of meat. Hog slaughtering in Canada, as well as in the United States, has declined during the present year, and total slaughter in inspected plants this year may not be more than 6,000,000 head as compared with 8,750,000 head in 1944. The spring pig crop for 1945 is estimated to be 17 percent less than a year earlier so that the decline in slaughter is expected to continue into 1946. Canada still expects to ship overseas this year some 450,000,000 pounds of bacon and ham and over 250,000,000 pounds of beef, as carcass or canned. In order to ship as much meat as possible to England and the liberated countries, Canada has meat rationing, two meatless days each week, and requisitions for export of all slaughterings of grade A, and a large part of B1 hogs in inspected plants.

Meat rationing, plans for which were made prior to surrender of Japan, was resumed September 10, with a view to increasing the volume of overseas shipments. Assuming that the minimum commitment to Britain of 450,000,000 pounds of bacon and ham is met, together with requirements for canning for export to liberated countries and for the military and other noncivilian uses, meat supplies left for civilian consumption for the calendar year 1945 will be very similar to those of 1944, or about 150 pounds per person. If rationing is effective in reducing civilian meat consumption during the latter part of the year, the amount available for export will, of course, be correspondingly increased.

During the war, increased dairy production in Canada has made possible an increase of 17 percent (1944 over 1939) in fluid-milk supplies for domestic consumption, slightly more butter than before the war, and large quantities of cheese and concentrated milk for overseas. Dairy production will also be somewhat higher in 1945 than in 1944. Butter production is slightly less than last year, but production of cheddar cheese, which is an important export product, is between 5 and 10 percent larger. There are substantial increases also in the production of other milk products, amounting perhaps to 14 percent for dried milk and 10 percent for canned.

The Canadian egg-production industry, which has expanded by one-third of its prewar volume, may be expected to supply 90 million dozen eggs for shipment to the United Kingdom during the calendar year 1945. This is 10,000,000 dozen more than was shipped in 1944. Approximately half of these

exports will be shelled and the balance powdered. Movements of dressed poultry from Canada to the United States have increased materially during 1945, reaching 10,000,000 pounds during the first 8 months of the current calendar year.

United States *

The general food outlook in the United States for 1945-46 has been materially improved by the sudden end of hostilities, which has greatly reduced military requirements. Total food production this year will be approximately the same as last - about a third larger than the prewar (1935-39) average. This year's crops of wheat, rice, and oats are of record size. The corn crop is estimated at 3.1 billion bushels, or slightly less than last year. However, good pastures and a large supply of hay will permit the maintenance of a high level of livestock production.

According to present indications, the available United States food supply for this year may be divided about as follows: Civilians 83 percent, military 8 percent, and total exports and shipments 9 percent.

Although substantial quantities of some foods will be exported, a substantial part of the cutbacks in military purchases will accrue to United States civilians, but these cutbacks will also permit an increase in the quantities to be exported. At the same time, there may be some tapering off in civilian demand. The additions to civilian food supplies, as a result of the end of hostilities, will permit civilian per capita food consumption to continue this year at or slightly above the average rate of last year. If hostilities had continued, civilian consumption would have been materially lower. The fats and oils situation has improved somewhat since the end of the war, but the tight supply situation in sugar is expected to continue without substantial improvement until spring. Supplies of some other foods, such as meats and canned fish, will continue somewhat short of demand, but larger supplies for civilians are expected this year than last, certainly larger than in the spring and summer of 1945. Many foods, including potatoes, eggs, milk, and canned foods, will be plentiful.

If satisfactory financing arrangements are completed to take the place of lend-lease and if transportation problems are solved, exports of food from the United States this year, including increased exports of wheat and flour, may be larger in total than the year before. Meat production may be slightly less than the 23-billion pound output in 1944-45 but still 40 percent above the prewar average. A possible 40 to 50-percent reduction in military procurement would permit over 1.5 million pounds to be exported, in addition to maintaining civilian supplies for the rest of the year at or above 140 pounds per capita (wholesale dressed-meat basis). Much of the meat available for export will be lower grade beef. Similarly, the reduced military takings of canned fish will benefit both United States civilians and people in liberated areas. As much as 175,000,000 pounds of canned fish could be shipped from the 1945 pack. The sudden reduction of military needs in 1945-46

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* Prepared in the Bureau of Agricultural Economics

for dried eggs, as well as shell eggs, continued large production, and smaller civilian demand will provide at least 300 and possibly 600 million dozen eggs, dried and frozen, for export.

Indications are that milk production in the United States this fiscal year will reach about 122 billion pounds, or slightly more than that of 1944-45. With reduced military procurement of manufactured dairy products, more milk may go into butter production, and fluid milk and cream supplies will remain at a high level. Cheese production is expected to level off, and the production of canned and powdered milk can be expected to drop. After allowing for increases in United States civilian supplies, possibly 300 to 400 million pounds of cheese, perhaps a billion pounds of canned milk, and large quantities of powdered milk, excepting spray skim, could be made available for export.

The 1945-46 fats and oils situation in the United States is tighter than in the previous year, largely because inventories were reduced about 1 billion pounds last year, and lard output may be as much as 200 million pounds below the total of 2,440 million pounds turned out in 1944-45. Because of short world supplies and strong European demand, imports of edible fats and oils are expected to be smaller in 1945-46 than in the previous year. If civilian fat consumption, including somewhat more butter than last year, averages about 40 pounds per capita, fat content, approximately 450 million pounds of lard and 100 to 200 million pounds of other edible fats and oils can be exported in 1945-46.

The most important factors in the United States fruit supply this year are the very short apple crop, another large citrus crop, increased imports of bananas and pineapple, and reduced military requirements for most processed fruits. Although some canned fruits and fruit juices will be exported, the principal item for export is dried fruit. Up to 300 million pounds could be shipped without reducing United States civilian supplies (per capita) much below their prewar level.

Because of the large pack and much smaller military takings than in the past 2 years, supplies of most canned vegetables will be plentiful. Although commercial exports will increase greatly, only small quantities probably will be shipped to liberated areas because of cost and other factors. Exports of fresh potatoes this year will be limited only by lack of suitable shipping, port facilities, and funds, since the very large domestic crop is giving rise to surplus problems. Military purchases of dehydrated potatoes have been greatly reduced. Dehydration facilities will be available for processing at least 10 million bushels of potatoes for overseas shipment, if desired. The sweetpotato, dry bean, and dry pea crops are smaller than last year. If distribution of dry beans in the areas of this country, such as the Southwest, where they are an important part of the food supply, can be assured, civilian supplies could be reduced in order to provide perhaps 150 million pounds (less than 10 percent of the total supply) for export. Despite the 35 percent smaller crop, 200 million pounds of dry peas (cleaned basis) could be exported from the current crop.

The current wheat crop in the United States is estimated at 1,152 million bushels, 73 million larger than last year's record crop. About twice as much

wheat can be exported from this record crop as the 140 million bushels shipped out last year (including military relief feeding). As the result of the August hurricane the rice crop may be only slightly larger than that of 1944. If a satisfactory distribution of domestic supplies to those areas of this country where rice is an important part of the food supply can be worked out, as much as the equivalent of 40 million bushels of rough rice could be shipped out. It is probable that this rice will go to the Pacific and Caribbean areas and not to Europe. Both the rye and barley crops are short this year, but possibly limited quantities of grain or grain products may be shipped out. The 1945 corn crop is now indicated to be only slightly smaller than last year's record of 3.2 billion and should permit some exports. The oat crop is of record size, 1.6 billion bushels, but exports will be relatively small.

The United States sugar situation is expected to continue very tight until next spring when supplies from the new Cuban and Puerto Rican crops become available. Even then, supplies will be short of demand at present prices. Total exports and shipments from United States sugar supplies this year are not likely to exceed 250,000 short tons (raw value) the equivalent of less than 5 percent of imports and receipts from island possessions. While supplies of sugar in this country are expected to increase in 1947, the world sugar situation probably will not approximate the prewar situation for several years.

Mexico

The low average rainfall has reduced 1945-46 crop prospects in Mexico. Preliminary indications are that production of food this year may total about 25 percent above the prewar average, or about 10 percent less than last year's output. With the increase in population and the higher level of consumer income during the war years, Mexico is still dependent upon imports for part of its food supply, despite the sharp increase in production during the war.

The corn crop this year is tentatively estimated at 80,000,000 bushels. Corn is by far the most important food item in the Mexican diet and very little of the crop is fed to livestock. Last year's crop of approximately 96,000,000 bushels was about sufficient to meet domestic needs, but the 20-percent reduction in the current crop will make it necessary to import several million bushels this year.

The current wheat crop of about 14,000,000 bushels will meet only about half of domestic requirements and is about the same as the preceding crop. During 1945 approximately 15,000,000 bushels are being imported, and a similar quantity is likely to be needed in 1946. Rice production has expanded rapidly during the war years, and a record crop is in prospect this year. No imports are likely. Sugar production also has expanded sharply; but per capita consumption has increased faster than production, and import requirements for 1945 are estimated at 80,000 short tons and for 1945-46 about 110,000 tons.

The bean crop is estimated to be 15 percent below that of last year, but carry-overs from the previous crop may be sufficient to meet this year's needs. The production of vegetable oilseeds has increased rapidly during the

war years, and the production of vegetable oils this year, estimated at 208,000,000 pounds, is only slightly less than the average consumption of 220,000,000 pounds. Animal fats are in short supply. Large quantities of lard are being imported in 1945, and imports are anticipated for 1946.

Drought and Sigatoka (leaf wilt) have adversely affected the production of bananas for export this year. Weather conditions have been improving, however, and the materials for the control of Sigatoka may be more readily available for 1945-46. Should these improvements continue, 1945-46 exports of bananas may amount to approximately 7,000,000 stems. The production of vegetables, particularly for the export market to the United States, has increased sharply in recent years. During the coming winter season, exports are expected to approximate those of the preceding year, when 9,156 carloads were shipped. Of this total, 7,800 carloads were of tomatoes.

Meat production has been below domestic requirements in 1944-45, and the scarcity is expected to continue through 1945-46. Shortages are particularly acute in city markets. Exports of feeder cattle to the United States have declined in recent years, partially because of government restrictions. Despite the smaller exports, beef slaughter in commercial establishments has been running below the prewar average.

Central America

Although food production has increased during the war years, greater population and expanded wartime purchasing power has increased the effective demand for food products. During the past 2 years drought conditions have reduced supplies, and shortages of basic food crops have been acute. The small supplies usually available in certain countries to supply neighboring areas have been reduced, and imports of sugar, beans, rice, and corn from outside the area have been needed. Rice production in 1945 probably will be down to 7,000,000 pounds from 7,400,000 in 1944. Prospects are good for those food crops grown for harvest in late 1945 and early 1946. Imports may be reduced, therefore, in 1946.

In Central America as a whole the principal food exports are bananas, coffee, and cacao. Before the war exports from this area were approximately as follows: Bananas, 39,000,000 stems; coffee, 2,000,000 bags; cacao, 24,000,000 pounds. While food in considerable quantity and variety was imported, the most serious deficits were in wheat flour and fats and oils. Prewar imports of wheat flour and lard approximated 86,000,000 and 4,000,000 pounds, respectively. Regarding the other staple food items--corn, beans, and sugar--the area was practically self-sufficient, slight deficits in some countries being met by small surpluses in others. Small quantities of rice moved into the area from outside, mainly into Panama and Costa Rica. Small imports of meats and dairy products were largely for the city trade. Panama depended on outside food to a greater extent than the other countries, importing a wide variety of products from the United States.

Cuba

The worst drought in 86 years, lasting 8 months, with rainfall only 40 percent of normal, has reduced agricultural production in Cuba during 1945 and is expected to affect certain crops adversely in 1946. This dry weather was particularly serious, because it followed two years having severe winter droughts. Foodstuff production was cut sharply, increasing the demand for imports. Pastures dried up and many cattle died of starvation. Market supplies of indigenous vegetables and starchy root crops, such as potatoes, sweetpotatoes, yuca, and malanga, have been sharply reduced, and the rice shortage is acute. Supplies of fats and oils are short. On the other hand, there is a slight seasonal increase in imported supplies of beef and milk, and imports of wheat flour are ample.

Cuba's economy rests heavily on its principal export crop--sugar. The absence of 2-year growth cane and the drought is estimated to have reduced the 1945 sugar crop by 1.7 million tons below that of 1944 which may be considered 1½ crops. The drought may also affect the 1946 crop by delaying the new growth. Recent rains, however, have improved the prospects for a 1946 crop larger than that made in 1945, possibly reaching 4,250,000 short tons, compared with 3,925,000 in 1945. With the exception of 284,000 short tons set aside for domestic consumption, the entire 1945 crop is available for export, most of it to the United Nations under a purchase contract with the United States.

Rice is the basic food of Cuba, but domestic production provides only a small part of total consumption. The allocation of the Combined Food Board for rice imports into Cuba from all sources for the year ending September 30, 1945, was 375,000,000 pounds, of which 300,000,000 are to be supplied by the United States. With a reduced domestic crop in 1945, import needs for the allocation year beginning October 1, 1945, will be no less and probably will be more than for the current year. In recent years the United States has furnished the major portion of this importation, with other Western Hemisphere countries, particularly Ecuador, providing the remainder.

Because of both drought and insect damage, the main corn crop will be much smaller than the usual crop of 350,000,000 pounds. The Government has waived the import duty on imports of 30,000,000 pounds, which quantity it hopes to import to meet the scarcity. Stocks of old-crop corn were practically exhausted in mid-July.

Meat supplies during 1945 have been scarce, especially in the city markets, and are not expected to meet domestic needs in 1946. The shortage of dairy products is expected to continue through early 1946. Fats and oils, both animal and vegetable, were in short supply all during 1944 and so far in 1945, making necessary an annual import of about 100,000,000 pounds of fat. Heavy imports are expected to continue into 1946.

Production of truck crops for export probably will expand, and exports of bananas and pineapples are expected to continue their upward trend. Beans and potatoes are not produced in sufficient quantity to meet demands, and imports are necessary.

South America

The prevalence of drought conditions in southern Brazil and Argentina from May 1944 until early July 1945 hindered the production of livestock and grains. The 1944-45 cereal crops were reduced sharply, and the 1945-46 wheat crop in Argentina was seeded late because of dry, cold weather during the usual sowing months of June and July. For the first 6 months of 1945, as a result of the unusually dry, cold weather, aphid attacks upon pastures, and a 3 month-long frigorífico strike, exportation of Argentine beef was only 55 percent as great as that during the same period in 1944. Cattle slaughter, however, during the winter of 1945-46 is expected to be about 10 to 15 percent greater than that of the previous winter. A less intensive drought in early 1945 hindered farm production in Uruguay and Paraguay.

Brazil is expected to produce an exportable surplus of about 220,000,000 pounds of rice from August 1945 through March 1946. This quantity, together with exportable supplies from west-coast countries of probably 104,000,000 pounds, will give the Continent about 9.4 percent less for export than was available in the corresponding period 1944-45. Most rice will move through established trading channels to fulfill, in part, previous commitments.

Peru is the only South American country that produces an appreciable quantity of sugar for export. Peru's estimated exportable supply for this year of 303,000 short tons is 28 percent less than the total exported last year. Peruvian sugar is consumed largely by other deficit countries of the Continent, however, leaving little for export to overseas countries.

The quantity of fats and oils available for export from Argentina and Brazil in 1945-46, less that required by the west-coast deficit area, gives net exportable supplies of about 377,000,000 pounds. This is a slight decrease when compared with supplies in the same period of the previous year.

Argentina

Argentina normally exports large amounts of meat, wheat, corn, and linseed. Although relatively unimportant in the total production picture, the output of edible vegetable oilseeds has increased sharply during the war, and Argentina has shifted from an import to an export basis.

Despite marked increases in production of some items for domestic consumption, Argentina's production of food items in 1944-45 was estimated at only 96 percent of the 1935-39 average. Reduced production was the result primarily of the severe drought that has adversely affected crops throughout a large part of the Southern Hemisphere. Since the population increased by about 12 percent between 1935 and 1943, the 1944-45 drop in production is more marked on a per capita basis. Because so much food is exported, however, the foreign market, rather than the domestic consumer, bears the brunt of the decrease in supply.

Corn and wheat are the most important grains in Argentina from a trade standpoint. The 1944-45 corn crop, estimated at 117 million bushels, was only one-third as large as the preceding crop and 60 percent smaller than the prewar average. Both because of the smaller crop and reduced stocks brought about by burning corn for fuel and by feeding larger amounts, export supplies during the remainder of 1945 and early 1946 are expected to total only 29 million bushels. Since the 1945-46 crop will not be planted until September and October, no estimates are now available on the size of that crop.

The 1944-45 wheat crop of 150 million bushels was also smaller than average and 40 percent less than the preceding crop. It is too early for official predictions relative to the size of the 1945-46 crop. From January 1 to June 30, 1945 Argentina exported 60 million bushels of wheat, leaving a sizable amount still available from the old crop for export. The lack of fuel for transport, however, is seriously limiting the export movement. Argentina has increased rice production during recent years and is now approximately self-sufficient in this cereal.

Drought has reduced meat production by causing poor pasture for beef animals and lessening feed for hogs. Argentina is the chief beef exporter in South America, shipping 990 million pounds in 1944. The sharp reduction in exports during the period January through June 1945 greatly reduced the amount of meats available to importing countries. During the coming winter, however, more beef may be available for export than in the corresponding period of 1944-45.

Lamb and mutton supplies for export may remain near or slightly less than the 1944 figure of 238,000,000 pounds. From 1940 to 1944 pork production increased sharply to nearly four times that of prewar years, but the shortage of feed has resulted in a sharp drop during 1945, and exports in 1946 may not exceed 330,000,000 pounds. Dairy products will probably continue available for export in small quantities, with actual amounts shipped depending on pasture conditions.

During the war Argentina has increased its production of vegetable oils to a point where substantial quantities can be exported. Sunflower-seed production has increased sevenfold above the 1935-39 average, and the exportable supply of sunflower-seed oil for 1945-46 is estimated at from 243,000,000 to 265,000,000 pounds. Lard and tallow exports of 130 to 145 million pounds are expected.

Brazil

Brazil's food production has increased considerably during the war years, but drought reduced agricultural production in 1944 to about 16 percent above the prewar average and some 10 to 12 percent below the output of the preceding year. Import requirements for wheat remain about the same as before at 37 million bushels a year. Partly because of drought and increased domestic consumption, only small exports of meat and meat products are predicted for the winter of 1945-46. While the drought has been broken in central Brazil and São Paulo, only light rains have fallen in the important cattle State, Rio Grande do Sul.

Brazil as a nation is fairly self-sufficient in foods, excepting wheat and wheat flour. Internally, however, the tropical northern and northeastern parts of the country are dependent on the more temperate southerly States for many foodstuffs. Problems of transportation and storage are prominent among the factors limiting both the domestic distribution of foods grown in the huge country and the quantities of exportable surpluses available for export.

Coffee, of which Brazil is the chief world supplier, is the country's outstanding export. Far less important are cacao, rice, and citrus fruit. A wartime drop in exports of citrus has been related in part to a root disease that has made inroads into Brazil's orange groves. In the early part of the war the country's meat products were drawn upon to a greater degree than usual, but slaughter for export since 1942 has dropped considerably as domestic demand has increased. Drought and overkilling early in the war reduced available supplies. The food commodities mentioned, plus cottonseed products, are Brazil's chief contributions to world food markets.

Estimates indicate that, except for the following quantities of specified products, probably available for export between August 1, 1945, and March 1, 1946, most domestically produced foodstuffs will be needed for domestic consumption: Coffee, 35,000,000 132-lb. bags; cacao, 211,000,000 pounds; cottonseed oil 31,000,000 pounds; rice, 220,000,000 pounds; beans, 4,000,000 pounds.

The Secretariat of Agriculture of Sao Paulo, the leading crop-producing State, is encouraging farmers to take advantage of an emergency plan under which floor prices are established for certain products that are in export demand. The belief is that 25 percent of the area which was to have been planted to cotton will be switched to rice; white, colored, and black beans; corn; peanuts; soybeans; and sunflower-seed.

Other South American Countries

Other South American countries, except Paraguay and northern Chile, have not been seriously affected by drought and, in most cases, tended to become more self-sufficient in food production during World War II. Bolivia is an exception to the latter statement, because a high wartime level of mining activity increased consumer demand and drew laborers from farms. Increased oil production had a similar effect on the Venezuelan economy.

Bolivia is highly dependent upon imported food. In 1945-46 appreciable imports of wheat, wheat flour, rice, sugar, lard, vegetable oils, and dairy products will be required, most of which probably will be imported from the Argentine. Chile, on the other hand, is largely self-sufficient in food production, and its only requirement for foodstuffs in 1945-46 will be a small quantity of sugar, which will come mainly from Peru. Since 1939, Chile has shifted from an importing position to a heavy surplus producer of rice. Chilean vegetable-oil production also has been expanding, and the development of a domestic sugar industry is anticipated.

Possibly the only notable change that will occur in the Colombian food production situation as a result of V-J Day will be an increase in the exportation of bananas. This, however, is dependent upon the development of a working agreement between the Colombian Government and a producing

and marketing company. Colombia will need to import slightly less wheat, wheat flour, fats, and oils in 1945-46 than during the previous year. Coffee exports will total about 3,200,000 bags in 1945-46 which is 36 percent less than exports during the previous year.

The 1945 Ecuadoran sugar and rice crops are short, which will necessitate the importation of more sugar and will result in smaller rice exports than during the previous year. Banana exports will probably double now that the war has ended.

Because of drought, Paraguay's requirements for wheat, rice, and sugar, which are normally small, will be above average in 1945-46.

Peru's chief export food crop is sugar. An exportable surplus of 303,000 tons is expected in 1946, which is less than the 1944 export crop of 397,000 tons and the prewar average annual export production of 340,000 tons. Peru will need unusually large imports of meats, fats, and oils in 1946 and about the usual quantities of wheat, wheat flour, and rice.

Exports of meat and meat products from Uruguay during the period October 1, 1945, through March 31, 1946, will probably total 39,000 tons or more. Little hope exists for exporting various minor products normally exported. Wheat, corn, cereals, and forage will have to be imported from Argentina, because the recent drought considerably reduced domestic production in 1944-45.

Since the outbreak of World War II, Venezuelan food production has increased somewhat. Nevertheless, relatively large imports are needed in 1945-46 of wheat, wheat flour, other cereals, lard, oils, fruits, and dairy products including butter, cheese, condensed, and dried milk.

British Isles

United Kingdom

The end of the European war finds the United Kingdom adjusting its agricultural output toward increased production of livestock, their products, and feed crops and decreased production of such food crops as wheat. Livestock numbers, particularly those of hogs and poultry, are again increasing as rapidly as feed supplies will permit. The 1945 wheat acreage has been reduced by over 25 percent, but this decline has been largely offset by an expansion in the acreage of feed grains. The adjustments in 1945 agricultural production are expected to result in some decline in the total farm output of food products in 1945, since the shift back to livestock production will not be fully reflected in the food supply until the expansion in numbers results in increased marketings.

In terms of calories, the farm output of food crops will be about 10 percent less in 1945-46 than last year, whereas the production of livestock products may be about 5 percent larger. The level of food production, however, continues to be about 40 percent above the prewar average and is expected to be only about 5 percent less than last year.

Adults in the United Kingdom are estimated to have received an average of 2,800 to 2,900 calories daily for the past several years. In 1944, as compared with prewar years, grain consumption had increased by 17 percent, and that of potatoes by as much as 61 percent. However, use of fruit was less by 30 percent and of sugar, by 31 percent. Meat consumption had declined by 19 percent and that of fats, including butter, by 16 percent, but the use of other dairy products was 26 percent greater.

The United Kingdom has announced its intention to contribute toward Continental food supplies. In order to do so, domestic rations have remained largely stable or been reduced. The country's wartime reserve stocks of several primary commodities have been depleted within the past year to help alleviate the critical food shortages on the Continent. Consequently, the United Kingdom, itself, stands in need of increased imports. The bacon ration has been cut by 25 percent from 4 ounces per person per week, and that of cooking fats during the summer of 1945 by 50 percent from 2 ounces. With the exception of a 20-percent addition to the tea ration of 2 ounces per person per week and a longer-than-usual increase in the milk ration during the summer, no increases in rations have yet been made. However, year-around consumption prospects for liquid milk and fresh eggs look somewhat brighter.

Total supplies of fish for the first half of 1945 exceeded 500,000,000 pounds and were nearly 10 percent above those of the corresponding period of 1944. With the end of the war, a further expansion in fish production is probable in the latter half of the year.

Because of the decline in wheat production in 1945 and a reduction in the reserve stocks of food, the United Kingdom will be more dependent than in 1944-45 upon imports. In order to maintain the present restricted rations during 1945-46 it will need to import approximately 5,000,000 tons of cereals, mostly wheat, 1,750,000 tons of meat; 1,500,000 tons of sugar; 1,000,000 tons of oils and fats, including butter; and about 300,000 tons of other dairy products, mostly canned milk and cheese.

Eire

Prospects for the current harvest in Eire are generally quite favorable. As the result of an exceptionally good outlook for wheat, the current crop may exceed the 20,400,000 bushels harvested in 1944. Adverse weather conditions make it questionable whether this season's potato crop will be greater than that of about 112,000,000 bushels a year ago. The 1945 sugar beet crop is expected to surpass last season's output of more than 700,000 short tons. Cattle and sheep numbers give promise of some increase this year, but any appreciable advance over last year's low hog and poultry numbers will largely depend upon increased domestic production of feed crops.

Eire has appropriated £3,000,000 ($12,000,000) for clothing, food, and livestock to be sent to the relief of the Continent. Among other items are 20,000 head of live cattle and 1,500 draft horses. In general, the country's food supplies since the beginning of the emergency have been adequate from the standpoint of calorie requirements. By food types, consumption of cereals and vegetables expanded in proportion to the

contraction in supplies of livestock products. Contributions of dried milk and cheese for relief involve a further reduction in home-market supplies. The donation of butter will necessitate year-around maintenance of the per capita weekly ration at 6 ounces instead of permitting the usual summer increase to 8 ounces. The contribution of sugar entails a reduction in the per capita weekly ration from 0.75 to 0.5 pounds.

Continental Europe
(Excluding the Soviet Union)

Agriculture in continental Europe has been hard hit during the season now drawing to a close. A decline in domestically produced food supplies in 1945-46 from wartime levels was to be expected as a result of the dislocation of farming activities consequent upon the closing campaigns of the European war and its aftermath, and the decline has been sharply accentuated by unfavorable weather.

Excessive rain and cold hampered fall and winter sowing, affecting mainly bread grain, in much of Europe. In the spring a severe drought developed throughout the Mediterranean region from the Iberian peninsula to Greece. Moisture deficiency later in the year has been reported in many areas north of the Mediterranean region, while some parts of the Continent near the North Sea had extended rains at the grain harvesting season.

The dislocation of farming activities is especially apparent in eastern Europe, including parts of Germany, Austria, and Czechoslovakia, as well as Poland and the Danube Basin. This region has felt the impact not only of military operations but of extensive social changes, population transfers, land reforms, altered farm controls, and heavy losses of livestock, farm machinery, and transport vehicles. In western Europe, the major depressive factors, aside from the weather, seem to have been another sharp contraction of fertilizer deliveries to farmers, an acute shortage of fuel, disorganized transport, and a further deterioration of agricultural and food controls.

The decline in the amount of food obtained from domestically produced grain and potatoes compared to prewar will be less than the decline in farm output of these products because most countries are continuing to extract more flour from grain than is customary and to use for direct human consumption a part of the grain and potatoes ordinarily reserved for livestock. The decline from last year, however, may be affected by a tendency to lower the high wartime extraction rates and to redivert grains and potatoes to feed, though in the Danube Basin, for example, the trend is in the other direction. Yet the most rigid economy possible in crop utilization would still leave grain production for food, in terms of flour, substantially below the prewar average.

Reduced output of other crops and of livestock products will also contribute to the decline in food production. The drop in sugar-beet output is expected to be greater than in that of any other major field

crop, and damage to sugar factories and the shortage of coal may hamper processing of the beets produced. Though olive oil production may increase somewhat, total output of fats and oils will be curtailed due partly to decreased cultivation of oilseeds and partly to the reduction of livestock numbers in 1944-45, which will of course also affect meat and milk production in 1945-46. Even if the urgent demand for meat and fats in urban areas overcomes farmers' desires to rebuild herds, domestically produced supplies of livestock products are likely to be under the low 1944-45 level.

There can be no doubt about the sharp decline in food production in continental Europe this year although its extent is difficult to measure precisely. Statistical services in many European countries are in the process of reconstruction, communications are disorganized, and economic conditions have tended for some time to encourage underestimates of crop and livestock production. After making some allowance for these factors, and other factors affecting statistical estimates, and assuming a pattern of crop utilization at the farm level similar to that prevailing during the war, total farm output of food products in 1945-46 is tentatively estimated at nearly 15 percent below the figure for 1944-45, and about 25 percent below the prewar average. The amount of food available from this farm output, however, will be only about 20 percent below the prewar average provided that wartime milling practices are continued.

Since continental Europe was on a deficit basis for food in prewar times when production was much larger and the population (in 1936) somewhat smaller than at present, the gap between prospective indigenous supplies in 1945-46 and consumption at prewar levels is obviously very wide. The prewar deficit amounted to around 10 percent (including food produced from imported feed) for the Continent as a whole. The deficit for western Europe was much greater, for large surpluses were available in eastern Europe. Net exports from Poland and the Danube Basin in the last prewar years included about 2,000,000 short tons of wheat and rye, and almost as much of other grains, some 225,000 short tons of dry legumes, around 225,000 tons of meat and slaughter fats (exported mainly on the hoof), and nearly 80,000 short tons of eggs. Such has been the decline in output in eastern Europe, however, that no supplies of any significance can be expected from that region to help fill the deficits of western Europe this year. According to official sources grain output in the Danube Basin is insufficient to satisfy domestic requirements, not to mention reparations and requisitions in Hungary, Rumania, and Bulgaria. Livestock products are undoubtedly in even shorter supply than grains throughout eastern Europe.

Among west European countries, Denmark can maintain food consumption at a level somewhere between 2,800 and 3,000 calories per person per day and still export appreciable amounts of livestock products. Sweden could provide its population with approximately the same number of calories and have a small quantity of food available for export. In other west European and in the Mediterranean countries, consumption will drop to low levels unless imports are forthcoming in substantial quantities. Tentative estimates of the average daily per capita energy value of their indigenous food supplies for this year range from less than 1,400

calories in the Low Countries and Greece to no more than 2,200 calories in Czechoslovakia.

In estimating import needs of continental Europe this year, account must be taken not only of local food production but also of food distribution. Since most of the farm population, which constitutes around 40 percent of the Continent's 350 million inhabitants, will continue to consume almost as much food as before the war, and since black markets cannot be eliminated as long as food is scarce, the chief burden of any food shortage will be borne, as in the war years, by the middle and lower income urban groups who cannot afford to supplement legal allowances to any great extent, if at all. Millions of consumers in these groups have been subsisting on as little as three-fourths, two-thirds, and even one-half, of their prewar calories. Their diet has also been poor in quality. Bread has been heavy and coarse, meat and fat rations, when available, have been meager, and whole milk has been generally reserved for children and special adult groups.

In view of the marked decrease in domestically produced supplies available for the nonfarm population that is implied in the downward revision of earlier 1945-46 production estimates, desirable minimum imports will be much larger than the total suggested last spring. In order to raise legally available nonfarm supplies in liberated areas to 2,000 calories per person per day, to provide ex-enemy countries with enough food to prevent widespread disease and unrest, and to permit some increase in imports into the neutral countries, continental Europe would need to import about 18,000,000 short tons of food with a composition roughly of 15 - 16,000,000 short tons of wheat, 1,000,000 short tons of fats and oils (including the raw materials in terms of oil), around 750,000 short tons of sugar, and some quantities of other foodstuffs such as meat, cheese, canned and dried milk, and legumes. This computation makes no allowance for the possible import needs of Hungary, Rumania, or Bulgaria on the assumption that these countries can satisfy minimum requirements out of domestic resources.

It must be emphasized that the above estimates are not forecasts of imports. They are based only on considerations of quantities necessary to maintain the assumed minimum calorie intake, and to bring some improvement in the composition of the urban diet in liberated areas. Actual imports will depend on many other factors, notably the surpluses and deficits in other parts of the world and arrangements made for financing imports.

Production in continental Europe will increase in 1946-47 if weather conditions are reasonably favorable. The recovery will be stimulated to the extent that plans for increasing supplies of fertilizer and agricultural machinery are carried out. A period of years must elapse, however, before productive capacity, especially in eastern Europe, can be fully restored. Provided that purchasing power of importing countries and supplies in exporting countries permit a rapid return to prewar diets, imports of food and feed into continental Europe are likely to exceed prewar levels for some time to come, as was the case after the first World War.

In the following country survey, the Allied countries with a considerable food deficit have been reviewed first; Finland, Poland, Czechoslovakia, and Austria follow; then the main ex-enemy territories (i.e. Germany and Italy); the Danube Basin; and finally, the neutral countries plus Denmark.

France

French food supplies from domestic resources, under normal during the war period, will probably reach a 5-year low in 1945-46. These supplies, other than alcoholic beverages, may provide an average of only 1,800 to 1,900 calories per person per day this year. This compares with a per capita intake of around 2,800 calories before the war when France imported about one-sixth of its food.

Unfavorable weather conditions and smaller supplies of fertilizer are chiefly responsible for the decline in production from wartime levels. Though the unusually wet and cold fall and early winter were followed by a period of fine weather, the delay in planting the all-important winter wheat crop could not be made up. A freeze on May 1 severely damaged fruit trees and vines. Rainfall has been generally inadequate since late spring. By July the drought had reached serious proportions in southeast France and was extending into the northwest.

Preliminary official estimates indicate the smallest wheat harvest since the poor 1940 crop, and these estimates may have to be revised downward. Output of potatoes and sugar beets is also expected to decline this year as compared to last, though sugar production should increase slightly if beet factories secure more coal than in 1944-45. While feed grain output is likely to exceed the low 1944 level, the hay crop will probably show no improvement. However, if the root crop is as large as in 1944, if timely rains revive pastures, and if the winter is mild, the feed and livestock situation should be no more difficult than in 1944-45. In any event, output of livestock products will remain well below the prewar average.

Some idea of French food deficits this year may be obtained from a comparison of output in 1945-46 with supplies for consumption in prewar times. Preliminary estimates indicate that domestic production will provide two-thirds to three-fourths of prewar grain, meat, and whole milk consumption and less than two-fifths of prewar sugar and fat consumption. With production at the estimated level, about 1,900,000 short tons of imported wheat would be required to raise grain consumption in terms of flour to the prewar level provided that the flour-extraction rate is maintained at 85 percent as compared with about 72 percent before the war. Substantially larger quantities would have to be imported if bread and flour were to be derationed. Imports of 330,000 short tons each of sugar and fats would raise per capita consumption to around 70 percent of prewar in the case of sugar and to 80 percent in the case of fats.

Assuming imports of 2,500,000 short tons of wheat, sugar, and fats, plus some protein foods to relieve the acute meat shortage in urban areas, French food supplies this year would provide an average of 2,400 to 2,500 calories per person per day. The share of the nonfarm population would be around 2,200 calories because the farm population, which constitutes about 35 percent of the total, will in any case continue to eat nearly

as well as before the war. Making a substantial allowance for black-market activities, which must be expected as long as shortages persist, supplies available for controlled distribution, under the stated assumption, should provide 2,000 calories daily per head of the nonfarm population.

Belgium

Preliminary estimates for Belgium indicate that food production in 1945-46 will be about 15 percent below prewar levels, when roughly half the country's food supplies were imported. Domestically produced supplies will provide some 1,340 calories per capita per day, or about 45 percent of the prewar average per capita consumption (excluding alcoholic beverages). The production of livestock products is expected to be almost 50 percent less than in prewar years, and little improvement can be foreseen while normal feed supplies, both domestic and imported, are unavailable. Production of vegetable foodstuffs may be close to prewar levels, but only if a higher-than-normal flour-extraction rate is maintained, and if a larger proportion of the total output of grain and potatoes than in normal times continues to be used for food at the expense of feed supplies.

Crop conditions in the winter and spring of 1944-45 were far less favorable than those in other recent years. Winter wheat was adversely affected by rain and cold during the planting season, and the acreage thus lost was not fully made up by increased spring-wheat seeding. Even less fertilizer was available than during the war period; and owing mainly to the depletion of the soil, yields were reported to be considerably lower than in other recent years.

Sugar production is expected to be far below normal, mainly because of the drop in acreage planted, which is reported to be the result of better price incentives for competing crops. Other important factors appear to be the dry weather, limited supplies of nitrogenous fertilizers, and shortage of selected seed.

A more moderate decline in potato production, in comparison with last year, is forecast for this year. But since production last year, and throughout the war, was well below prewar levels, a further decline may mean one of the smallest crops on record. Not only a reduction in acreage but also unfavorable weather conditions and the prevalence of the Colorado beetle point to a considerable decline in production.

A general inclination among farmers to return to the prewar pattern of production is clearly apparent from the census of acreages in 1945. A decline in acreage planted to food crops, balanced by increases in the acreage sown to industrial and feed crops, has already occurred. Some increase in the output of livestock products this year over wartime levels may result from this shift, but prewar levels cannot be reached without large amounts of imported feedstuffs, upon which the livestock industry was heavily dependent before the war. Meat production, on the basis of domestic feed supplies alone, will probably be at about half the prewar level; while milk production should compare considerably more favorably with normal output. The almost total discontinuance in 1945 of the large wartime rapeseed production is an important factor in the domestic fat

supply, which currently consists almost entirely of animal fats, as in prewar times, but with a larger proportion than normal of butter and considerably less of pig fat.

The greatest needs of Belgium in the coming year will be for bread grains, fats, and sugar. Domestic production will provide only a small part of normal per capita consumption of these foodstuffs and substantially less even than was available in wartime. In order to raise the supply of these commodities to reasonably adequate levels and to provide and maintain through controlled channels a minimum intake of 2,000 calories per day for the urban population, some 800,000 short tons of wheat would be required, plus at least 50,000 of fats and 20,000 of sugar.

Netherlands

Domestic production of food in the Netherlands in 1945-46 is expected to provide only about 1,300 calories per capita per day, or less than 45 percent of the average prewar energy intake.

This year, the production of food crops, which was on a much higher level during the war than before, is expected to fall about 20 percent below average prewar levels. Livestock products were especially important in the prewar food output, but production declined greatly during the war and this year may be less than half the average of the prewar years.

The sharp decline in production this year is due to several important factors. First is the reduction in acreage under crops by an estimated 9 percent and in grassland by an estimated 7 percent from wartime levels as a result of flooding. Second is the effect of several years of acute shortage of fertilizer, culminating in 1944-45 with a virtual absence of any commercial plant food. Similarly, insecticides and other farm supplies and farm equipment were generally short or difficult to obtain. Thirdly, weather conditions in the summer of 1945 have been reported unfavorable for some crops. Finally, fuel and transportation have been critically short since the autumn of 1944; and, while a gradual improvement is under way, sufficient power and transportation to insure full functioning of the food-processing industries will be lacking.

Under these circumstances, the supplies of bread grains, sugar beets, potatoes, dry legumes, and vegetables will all be affected in greater or less degree. Bread grain production, while markedly smaller than in the last years of the war, will probably not be lower than in prewar years, when most of the bread grain consumed was imported. Potato production is not expected to reach prewar levels in the current year, although a larger proportion may be used for food than in normal times. Sugar-beet production will probably be at less than half the average prewar level, whereas even dry legumes and fresh vegetables are expected to decline this year to levels well below the average before the war. Since, however, normally there were considerable exportable supplies of the two last-named categories of foodstuffs, supplies for domestic consumption may be approximately at prewar levels. No increase in meat production from the low level of recent years is likely unless feedstuffs can again be imported in considerable quantity. Milk production will probably be less than 60 percent of prewar levels, while a relatively larger share than before the war is

expected to go into fluid milk at the expense of cheese and butter production. Less than half the normal fat supply will be available.

The need for substantial food imports is apparent, even if no more than an emergency level of consumption is to be maintained. Assuming that prewar standards of food consumption will prevail in rural areas and that a consumption level yielding 2,000 calories per capita per day through controlled channels is to be provided for the urban population, there will be a total deficit for the year amounting to at least 3 trillion calories, or the equivalent of more than 1,000,000 short tons of wheat. If the specific shortages which exist are in some measure to be met, imports of about 800,000 short tons of wheat, over 50,000 of sugar, and 35,000 of fat will be needed.

Norway

Norway, which in prewar years produced less than 50 percent of the food it consumed, and during the war imported around 200,000 short tons of rye annually, besides sugar and fats, must continue to rely heavily on food imports during 1945-46, particularly of grain and sugar. At the same time the country will be able to supply other countries with very large amounts of fish, perhaps as much as 250,000 to 300,000 short tons in terms of fresh fish.

Provided the wartime pattern of grain utilization is maintained and the utilization of whale and herring oil for food increases, total output of food products in terms of calories will be sharply above prewar levels. Wartime increases in grain and potato acreages appear to have been maintained this year. In spite of the shortage of phosphate and potash fertilizers, the crop outlook is reported good although a drought in the agriculturally important southeastern part of the country may have impaired the potato crop somewhat. But even with a good grain crop the greater part of the bread grain requirements must be imported. Although relying heavily on barley and oats during the war Norway was able to supply less than one-half of the grain required for human consumption. While the fruit crop is stated to be poor, vegetables are abundant.

With the exception of horses and sheep, Norwegian livestock numbers are greatly below prewar figures. By April 1945 the decline in dairy cows, as compared to 1939, had reached 14 percent, the decline in hogs, 50 percent, and poultry is still more drastically reduced. Reductions in milk yields have, furthermore, contributed to bring milk production down to an estimated 70 percent of 1939 production; meat production has been reduced by one-half and egg production by two-thirds. The assumption is that the Norwegians will attempt to keep consumption of fresh milk this year at prewar levels, at the cost of butter and cheese production.

The size of the Norwegian whale-oil production during the winter of 1945-46 is difficult to estimate. Considering that this industry yielded some 220,000 short tons annually before the war, even a greatly reduced production would turn the country's present fat shortage into a surplus. Domestic herring oil production, which is now being used in the margarine industry, in contrast to prewar practices, also contributes to this favorable 1945-46 fat outlook.

If it is assumed that the Norwegians will retain enough (about 40,000 short tons) of their whale oil production to bring their 1945-46 per capita fat consumption this year up to 80 percent of the corresponding prewar figure and that per capita fish consumption will be as high as 60 pounds (fillet weight), total domestic food production would supply about 1,800 to 1,850 calories per person per day. If this were to be increased by 900 calories, an equivalent of about 400,000 short tons of grain would have to be imported. Assuming that one-fourth of these 900 calories, translated into annual import needs, were covered by sugar imports (65,000 short tons), the other three-fourths by bread grains, wheat and rye imports would only need to be around 300,000 short tons. In order to improve the quality of the bread, however, and free some of the home-grown oats for feed, bread grain imports of some 350,000 short tons might be desirable. The Norwegian government has already made arrangements for large grain imports and is considering the possibility of discontinuing bread rationing.

Greece

The food supply from domestic production will be unusually small this year. This is especially significant since Greece normally had to depend upon imports for a substantial part of its food needs. The current wheat and corn crops are estimated to be about 60 percent and rye, barley, and legumes, about 50 percent of prewar production. An acreage reduction of 15 percent, the severe drought, lack of draft power and agricultural implements, the civil war, completely disrupted transportation facilities, and the generally unstable economic conditions are the main factors responsible for this year's poor production. The only bright spot is the fresh-fruit and vegetable situation; there is enough of both these products for the current season. The potato crop is much larger than in recent years and about equal to the prewar average.

While this year's total output of food crops is still much below the prewar average, it is larger than that during the years when the country was occupied by the Germans, except for 1944, which was reported to be a good crop year. Nearly enough olive oil should be available for the whole population; but, because of faulty distribution and hoarding, many people will not get their share. This also applies, to a greater or smaller extent, to many other food items and will cause relatively much greater hardships in the cities.

The supply situation of meat and dairy products is equally dark because of greatly reduced livestock numbers. Because of this fact, however, more grain can be diverted to food use. Horses, cattle, mules, and hogs are reported to be about 50 percent of prewar numbers, whereas, sheep, goats, and donkeys, which could more easily be hidden in the mountains, have declined by approximately 25 percent.

Greece, which always had to import about 20 percent of its food (as much as 40 percent of its wheat), was hit extremely hard during the Axis occupation, when domestic production was much less than in prewar years.

If it had not been for the food shipped in and distributed by the Swedish-Swiss Joint Relief Commission during those years of occupation

and through the Army and UNRRA after that period, the situation would have been much more severe and would have endangered the very existence of a considerable part of the urban population of Greece. Though food imports at the present time may not be sufficient to bring the Greek diet up to prewar level for the whole population, they would nevertheless allow sufficient calories to bring the total per capita consumption up to a fairly satisfactory level if equitable distribution of the supplies could be achieved. The distribution problem is particularly important in a country such as Greece, where large sections of the population live in cities and in agricultural regions, specializing in tobacco, olive, and fruit growing, etc., with very inadequate quantities of food crops obtained from their own production.

Albania

From the sketchy information available, the Albanian food situation for 1945-46 appears to be unfavorable and in many respects similar to that in the neighboring countries, especially Yugoslavia. Before the war, Albania imported about 10 percent of its cereal requirements. The 1944 cereal crop was estimated at 25 percent below normal, and this year's crop may be even lower. The output of edible fats and oils was supposed to be 20 percent below normal last year and is assumed to be even lower this year, owing to a greater reduction in livestock numbers. Olive production, however, which is the main source of edible oil, might be close to the prewar average.

Albania, too, is initiating a land reform, but its actual immediate effect on production will likely be insignificant, for the plans call for changes to be made gradually over a period of years.

Finland

The Finns, especially the urban residents, are still enduring skimpy rations because of the effects of the war. Finland lost to the Soviet Union over 10 percent of her crop area without a comparable loss in population and suffered considerable destruction in the north from the departing Nazis. Food production is still below prewar levels, and food imports have not accounted for all the deficiencies. Before the war, the Finnish people obtained on the average 3,000 calories a day and in 1945-46 it is estimated that there will only be an average of 2,000 calories daily available from domestic sources.

Domestic agricultural production, estimated for 1945-46, has dropped from a fifth to nearly a half below average production during the prewar years 1933-37. Milk production is down about a fifth, potatoes about the same, bread grains a third, meats approximately 40 percent, and fats and oils around 45 percent. Domestic sugar production has declined a third, relatively a large amount, but as domestic sugar before the war only amounted to about 6 percent of the total consumed, this reduction is not as important as the question of imports.

The decline in domestic agricultural production will not produce an equivalent drop in food supplies because in 1945-46 a greater proportion of agricultural production will be devoted to human needs than

was the case before the war. During the war the amounts of grains, potatoes, and oil crops used for feed were sharply reduced, and the acreage of bread grains was enlarged at the expense of fodder grains. Starchy foods for human consumption available from domestic production will be nearly as abundant as were the same foods from domestic sources before the war, and milk, meat, and fats follow in descending order.

When compared with prewar per capita food supplies from both domestic and foreign sources, per capita food supplies from 1945-46 domestic production show deficits varying from 93 percent for sugar, which has to be imported almost entirely, to 12 percent for potatoes. Milk supplies are expected to be a quarter below prewar supplies because of decreases in production. Only two-thirds of the total prewar grain supplies will be available from domestic sources this year. In terms of flour, the situation is slightly better, due to higher flour extraction rates. Meat supplies are estimated at less than two-thirds of the 1933-37 average and fats and oils at a little over a half.

Even if there should be an improvement in weather conditions, which, as of August 15, promised about average crop prospects, it is evident that the farmer as well as the urban dweller will still be dependent, to a large extent, upon the importing of food products. The city workers, who search the black market to supplement their meager rations, feel particularly the need for obtaining substantial imports. Almost all of Finland's sugar has to be imported, a goodly proportion of grain is necessary, and food concentrates and fertilizers upon which increased production depends must also be imported. The Soviet Union and England have each recently made trade agreements with Finland and have promised unspecified amounts of food and feed.

Poland

To appraise Poland's 1945-46 food situation with any degree of accuracy is as yet impossible. Until the Potsdam declaration (August 2, 1945) not even the area under Polish administration was defined, and its present boundaries are only provisional. The size of the population, not accurately known now, will fluctuate. Germans may be expelled or brought in as forced labor, Poles now incorporated in Russia be exchanged for white Russians and Ukrainians, and other Poles return from many foreign countries. Parts of Poland have been fought over several times, hampering severely fall or spring planting or both. Battle damage and requisitions by armed forces have reduced supplies of agricultural equipment and decimated livestock.

Reasoned judgment of the present food situation must be based on consideration of (1) the change in territory known as Poland and (2) the factors operating on food production within that region. The old Poland was a surplus producer of food. In exchange for its low-producing eastern areas, it has obtained a section of much superior and better developed territory to the west from Germany. The population of 9 to 10 million formerly living in this territory has been partly expelled whereas in the areas transferred to Russia the population was largely

ceded with the territory. Thus the arable land per person has been considerably increased both in quantity and quality. The full effect of this improvement will not make itself felt on this year's domestically produced food supplies.

Within the new Poland weather conditions were not unfavorable for this year's crops. However, warfare, lack of manpower, draft power, and, in many areas, inadequate supplies of seed (which had been used for food) have reduced the planted area by perhaps as much as one-third. Not all the acreage planted will be harvested owing to land mines and shortages enumerated above. Lack of storage and transportation facilities and the severe depletion of livestock, which might have utilized nontransportable foodstuffs, will cause additional losses. The land reform in process and the displacement of German farmers are also major factors in the decline of food production.

Still, Poland will probably be able to supply its own requirements for bread grains and potatoes. Severe shortages, however, are certain to persist in all livestock products. Sugar, an export item in prewar days, may also be deficient.

There will be wide differences in food supply in the various parts of the country. Large black markets will tend to disrupt equitable distribution. On the other hand, the reopening of trade channels and United Nations' assistance will in some measure alleviate the food situation.

Czechoslovakia

Czechoslovakia will be relatively well off with regard to its 1945-46 food supply. The average consumer will obtain 2,200 calories per day from domestic production alone as compared with 2,800 calories from all sources in prewar days. The reduction (21 percent) is due mainly to a decline in production, Czechoslovakia having been almost fully food self-sufficient before the war.

All crop estimates for this year must still be considered as highly tentative. But one thing is certain: Czechoslovakia, and particularly Bohemia and Moravia, had an excellent crop year and would have produced record quantities had normal conditions prevailed. Grain production, and per capita supply from domestic production is down only 8 percent from prewar levels. In spite of this, flour consumption will even exceed prewar intake, owing to a change in grain utilization and higher milling rates, provided the wartime pattern in grain utilization and milling rates is maintained. Potato production is estimated to be down 16 percent, but a larger share of the crop will go into human consumption. The per capita supply may be 40 percent above prewar intake. Shortage of labor and materials and actual warfare have reduced the outlook for sugar production. The country, however, exported normally over 200,000 tons of sugar. Thus, the reduced crop will still meet the full domestic demand. About 100,000 tons of sugar in stock from previous crops are reported to be available for export.

In contrast to the starchy foods which provided about 60 percent of the calorie intake in prewar times, and which will be in adequate supply, a definite shortage of meat and fats will prevail. Domestic production is only half that of prewar years. The per capita supply of fat from domestic sources will be even less than one-third of prewar consumption. Fats constitute the food group in which Czechoslovakia was least self-sufficient before the war. The reason for the sharp decline in output is that in the battles of liberation the retreating Germans evacuated considerable numbers of cattle and hogs; and the Russian forces, subsisting almost entirely on the country through which they were passing, slaughtered many livestock, including milk cows. In general, though, Czechoslovakian agriculture was maintained on a high level of production throughout the war. Any reduction in crop output resulted mainly from a lack of manpower.

The average food consumption will further improve upon withdrawal of the remaining Red army units and the planned expulsion of many German and Hungarian nationals. Additional supplies will be obtained through normal trade and in the form of relief and perhaps reparations. Because of a relatively plentiful food supply the danger of much food disappearing in the black market need cause less concern than in many other European countries.

Austria

Domestic food production in Austria will permit an average daily intake of only 1,450 calories in 1945-46. This figure compares with a prewar consumption of 2,850 calories of foods from all sources. Restricted to home-grown foodstuffs, the average Austrian would thus have to subsist on half his prewar calories. Only about 50 percent of this decline is attributable to the effects and aftereffects of the war, because even in peacetime Austria imported 25 percent of its food needs.

Preliminary estimates show that production of most major food groups declined by about one-third when compared to prewar. The shortage of agricultural labor is the main reason for this decline. Shortage of fertilizers and machinery, the cessation of feed imports, and, in the last phase of the war, battle damage were contributory factors. Sugar output--sugar beet being grown largely in the fought-over zone of Lower Austria and Burgenland--may be only one-third of the prewar figure. Vegetable production will be higher and fruit production lower than in prewar days.

The wartime change in food utilization, diverting feed to food directly and through higher milling rates, if maintained, will improve somewhat the position of the consumer with regard to bread grain, flour, and potatoes. The tenfold increase in the production of skimmed milk for food--a larger share of the milk than in prewar days was diverted to butter production--compensates in part for the decline (40%) in whole milk for direct consumption.

Large quantities of grains, fats, and sugar will need to be imported if even a diet of minimum adequacy is to be provided. The

population is estimated to be somewhat (6 percent) larger than in the middle thirties but may actually be much larger, depending on the number of displaced persons and prisoners of war and on the size of the Russian and French forces of occupation stationed in Austria and utilizing the food supplies available there. Vienna, with its population of almost 2,000,000, is likely to be especially hard hit by any food deficit. In August 1945 its inhabitants lived on a ration scale of only 800 calories, rendering them indisposed or unfit for work.

Germany

Germany is among those countries whose output is particularly difficult to appraise at this time, owing to the very considerable disorganization of all statistical services, communications, and agricultural controls. Owing to differences in the amount of information for western and eastern Germany, these two parts of the country are discussed separately.

Western Germany (U.S.-U.K.-French occupation zone) 1/

This part of Germany normally imports a large part of its food. Even in prewar times, locally-produced supplies would have afforded only a scanty ration. In 1945-46, they are expected to be considerably smaller than before or during the war.

While acreages of grain and row crops sown and cultivated for harvest in 1945 in this zone, except for sugar beets, are not significantly below 1944, they are probably around 10 percent under the prewar level. Yields, on the other hand, particularly those on light soils, are indicated to be well below prewar (15 to 20 percent) and wartime averages. Applications of commercial fertilizer for the crop of 1945 were extremely low, moisture deficiency has been reported in southern Germany, and extended rains fell at grain harvesting time in northwestern Germany. Moreover, there has been a considerable labor shortage on farms for the past few months--a period of transition when most foreign workers left their posts, many German people were still on the move, and no settled pattern of redistribution of the population had yet developed. These reported facts are to some extent contradicted by other reports indicating substantial increases in the farm population, particularly in the British zone (northwestern Germany). These increases, however, appear to refer to the native population only, excluding foreign farm workers, and may even refer to population in rural communities and small towns, not to population on farms alone.

There does not seem to be a shortage of animal draft power, though a lack of tractors is reported by most observers. Numbers of productive livestock in general were said to have increased from the end of 1943 to

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1/ This zone lies roughly west of a line drawn from Luebeck on the Baltic to Erfurt in Thuringia and thence east to the western tip of Czechoslovakia. It comprises the provinces and states of Schleswig-Holstein, Oldenburg (Weser-Ems), Hannover and Braunschweig (Niedersachsen), Westphalia, Hessen, Hessen-Nassau, and all of western and southern Germany.

the end of 1944. Since then a considerable decline is presumed to have occurred, especially in the case of hogs and poultry, not only because of compliance with a programmed reduction but also as a result of war developments, requisitioning in southwestern Germany, and clandestine removal and slaughter of animals by displaced persons in search of food.

Actual battle damage has apparently not been on a large scale. Only in the areas where fighting took place was tilling and planting not done in time or not done at all. Livestock in these regions was depleted partly by removal to other areas, partly by actual loss. Because of the disorganization of transport, a shortage of seed potatoes was generally experienced.

Very tentative calculations of prospective food supplies from domestic resources in the zone occupied by the western Allies indicate that appraisals made as early as last fall still stand about unchanged. A factor complicating the calculation of supplies available per capita is the uncertainty as to the size of the population now in the zone and as to prospective transfers and infiltrations that may, on balance, increase numbers to be fed in that zone in 1945-46 to a material extent.

With farm and distribution controls partially ineffective, it is improbable that the total per capita supply from domestic resources for the nonfarm population this year will provide more than 1,000 to 1,200 calories per day. This level would include both rationed and unrationed as well as black-market supplies. Depending upon the degree to which farm and distribution controls will function, it is possible that up to 30 percent of the indicated supply for nonfarmers may reach them through illegal channels, leaving perhaps only about 800 calories for distribution as rationed and unrationed food. In this case, total distribution to the nonfarm population would be extremely inequitable, at the expense of the people in the larger cities.

This prospect makes the need for large-scale imports into the zones occupied by the western Allies a certainty. The extent to which this need may or may not be filled has not been announced; however, if food standards were to be raised to a level regarded as necessary to prevent widespread disease and unrest,[2/] imports of around 4,500,000 short tons in terms of wheat--actually made up mostly of wheat and some fat, sugar, and dry legumes--would be required. The needs of over 2,000,000 people in the U.S.-U.K.-French zones of Berlin would involve the equivalent of another 550,000 short tons in terms of wheat.

Eastern Germany (Soviet Russian occupation zone and areas under Polish administration

At prewar or wartime levels of production and at wartime levels of consumption, this part of Germany would have yielded a considerable food surplus. However, sketchy reports received from

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2/ 2,000 calories per day for the average of the nonfarm population.

eastern Germany indicate such a sharp decline in locally-produced food supplies this year that wartime consumption levels cannot be maintained over the region as a whole even if no food is exported.

The impact of the war and occupation in eastern Germany appears to have had a profound effect upon agriculture and its output. As the German forces retreated, numbers of farmers moved to the west, largely using farm horses as means of transportation. The Soviet forces and administration have requisitioned large quantities of livestock, including draft animals, and of mechanical equipment. The immediate change in management and the division of the numerous large estates in eastern Germany have been a further disturbing factor. Moreover, in the area east of the Oder-Neisse line, a process of repopulation of the farms by Polish peasants is under way.

These developments, commencing in the middle of the planting season for the 1945 crop, have interfered significantly with sowing, especially of spring crops and with cultivation and harvesting of all crops. The marked effect on productive capacity and the social changes under way no doubt will reduce 1945 farm output both in the Soviet-occupied zone and in the area east of the Oder/Neisse line relatively more than the special factors operating in western Germany will reduce output there. These influences will be additional to the general factor of a shortage of commercial fertilizer, of which supplies for the 1945 crop were very small indeed.

Italy

During 1945-46 domestic food supplies in Italy will yield about 1,400 calories per capita per day as compared with a prewar (1933-37) per capita daily consumption of 2,550 calories, 92 percent of which was supplied from domestic production. At no time since the country achieved its present boundaries has its food production sunk to the current low levels or has its population been so dependent upon imports.

During the spring of 1945 rainfall was but a fraction of normal, not only in the Italian Isles and in the areas south of the Apennines but also in that part of Northern Italy which lies south of the Po River. The drought delivered a severe blow to an agriculture that had already been harmed by shortages of fertilizer and draft power and by ground and aerial warfare. Cessation of hostilities in the spring of 1945 spared the all-important drainage and reclamation works of the Po Valley from much of the damage that had been expected but brought little relief from the coal shortage, which still hinders Italy's recovery.

The 1945 wheat acreage was 11 percent below prewar levels, comparable declines being reported for other small grains and a larger one for pulses. Only the corn acreage was maintained at prewar levels. Among the crops most affected by the war, the rice acreage declined by 40 percent and that of sugar beets by over 60 percent. Yields of most crops fell heavily. Wheat production this year is estimated at the lowest level since 1920, the rice crop is the smallest since 1899, and

the sugar output is one-tenth of normal. The olive crop is expected to be the smallest of the last twenty years. Livestock numbers, well maintained until 1942, declined sharply as the result of military operations; the output of animal products has been further curtailed by the inadequacy of feed supplies, hay production being 60 percent of normal and supplies of concentrates being reduced by 75 percent. The output of animal products may be estimated at 60% of prewar.

Deficient distribution controls further aggravate the food situation. Of the 5,200,000 short tons of grains available for human consumption, no more than 1,300,000 tons are expected to reach the 34,000,000 ration-card holders through controlled channels. The remainder will be partly retained by the 11,500,000 producers and partly sold on the black market. Again, less than one-third of the olive-oil harvest will be available for distribution to ration-card holders.

Current rations are woefully inadequate. The normal consumer ration provides less than 900 calories per day, consisting mostly of bread and paste, and this ration includes neither meat nor dairy products. Ration-free and black-market foodstuffs, which absorb over 80 percent of the total food expenditures, may contribute no more than 400 calories. Yet to maintain current rations, Italy will have to import over 2,000,000 short tons of wheat, 200,000 tons of pulses, 190,000 tons of sugar, and smaller amounts of fats and oils and of dairy products, the last-mentioned to be distributed only to especially vulnerable consumers.

The Danube Basin

This area, known as the bread basket of Europe, and covering the four countries of Hungary, Rumania, Yugoslavia, and Bulgaria, suffered greatly during the final stage of the war. The only territorial change this region as a whole has experienced, as a result of the war, is the transfer of Bessarabia and part of Bucovina by Rumania to the USSR. Devastation caused by the retreating and invading armies, sudden changes in government, and land reforms have all interfered with and reduced agricultural production and distribution. The extensive and severe drought which hit much of this area during the current season has further reduced production. As a result, practically no food products will be available for export to western Europe; and in many areas the food supply will not be sufficient to cover domestic needs on a prewar level, even if the Soviet Union should decrease its food requisitions.

The breaking up of large estates by the governments in Hungary and Rumania, and now about to start in Yugoslavia, is producing significant changes in the agriculture of these countries. While these reforms may eventually bring about the improvements in social and economic conditions for which they were intended, their immediate effect on production in most places is detrimental.

Inflated currencies and scarcity of vitally needed consumer goods are accompanied by the usual peasant hoardings and black markets. In many areas there has been an almost complete break-down in normal marketing channels. Rail- and water-transportation facilities have been seriously damaged, losses of draft animals were great, and trucks are not now available. Facilities for processing agricultural products are in poor condition; many were destroyed outright, and others are badly in need of repairs.

The occupation of the three ex-enemy countries--Hungary, Rumania, and Bulgaria--by large Russian forces necessitated further calls upon local food supplies. Under the reparations agreement, these three countries also have to supply the Russians with a great many agricultural products as well as livestock.

Extensive drought and a shortage of materials are additional factors restricting food production in this area. The severity of the recent drought over large areas supposedly was unprecedented. There have also been a general lack of man, and especially draft, power; absence of managers; and a general shortage of usable agricultural machinery. Production was further disrupted by the departure of German farmers from large areas of Rumania and Yugoslavia. Though these countries never used much fertilizer, the complete absence of all kinds of commercial fertilizers, a great decrease in available manure, and the unavailability of insecticides are other detrimental factors contributing to lower yields.

For the whole area this year's grain acreage is estimated to be about 75-80 percent of the prewar average. The decline in the fall-sown grain acreage was much greater, because actual fighting was still going on at seeding time in many agricultural areas; but this decline has partly been offset by an increased acreage of corn which is being used to a considerable degree as food, barley and oats. Because of reductions in acreage and yields, the total production of grain is supposedly down to about 60 percent of the prewar average. Before the war this area was a net exporter of about 3,000,000 tons of grain, but this year's grain crop will hardly provide for normal domestic requirements. Deducting the grain required for reparations and for feeding the occupational forces, which is considerable, the deficit is expected to be at least 750,000 tons, compared with prewar domestic consumption.

Livestock numbers are greatly reduced in all these countries, with horses showing a particularly severe decline. Meat, animal fats, and dairy products are very scarce, especially for urban consumers. The sunflower crop, the main source of edible oil and fat, is generally expected to be good, nearly twice the prewar average production, which will help alleviate an extremely tight situation.

Sugar, another item of scarce supply throughout this region, may be available only to the extent of about one-fourth to one-third of prewar domestic refined-sugar consumption. Before the war this area produced about 330,000 short tons of refined sugar and exported 27,500 short tons.

Fruits and vegetables are in general available in or near producing regions in sufficient amounts and are helping a great deal to alleviate the serious food shortage during the current harvest season.

Because of the shortage of transportation and peasant hoardings, the food situation of the urban population and in the areas of specialized agricultural production is much more serious than in the general farming areas. The peasant families are consuming in most cases as much, sometimes even of better quality, as in prewar days, and they probably cannot be induced to sell a greater share of their products as long as the economic situation in all these countries is so unstable and no consumer goods are available.

Spain

Food production in Spain, which has remained at low levels since the Spanish Civil War (1936-39) will fall heavily in 1945-46. Supplies from domestic resources may provide only 1,700 - 1,900 calories per capita per day as compared with a per capita intake of 2,650 calories in pre-civil-war years (1931-35), when Spain, with a smaller population, had a slight net export of food.

Both crops and livestock have been hard hit by a severe drought, which has covered most parts of Spain since early spring. The wheat harvest is reported to be smaller than in 1940, when output was officially estimated at about half the 1931-35 average. Rice production has been adversely affected by a shortage of irrigation water. Potatoes, other vegetables, tree fruits, and grapes have been damaged not only by drought but by a sharp frost early in May. Olive-oil output, while expected to exceed last year's low level, will probably be below average. Shortages of feedstuffs and prematurely dried up pastures may already have caused a decrease in livestock numbers by way of high mortality and excess slaughter. However, farmers in northern and northwestern Spain are reported to be holding back cattle.

Even if considerable allowance is made for overstatement of the drop in grain output for 1945-46, Spain would still need to import over 1,500,000 tons of wheat to raise per capita grain consumption in terms of flour to the pre-civil-war level, provided the wheat-flour-extraction rate were 95 percent as compared with around 78 percent in normal times. If per capita sugar consumption were raised to only 50 percent of the 1931-35 average, about 40,000 tons of sugar would have to be imported. Moreover, Spain has always relied on foreign sources for part of its legume and fish consumption.

While domestically produced fat supplies compare favorably with those of other European countries, Spain can hardly be counted on for olive-oil exports, which averaged 75,000 tons in 1930-35. Probably the only foodstuffs which Spain will be prepared to export in any significant amount in 1945-46 will be citrus fruit and canned fish.

Portugal

Production of food in Portugal in 1945-46 is placed at one of the lowest levels reached since 1929, when the country began its drive for self-sufficiency, and may provide no more than 70 percent of the prewar (1933-37) average per capita consumption.

Weather conditions, as affecting the output of small grains and pulses, are the deciding factor in Portugal's food position. Food production this year has been reduced as in 1943 by one of the severest droughts on record.

Portugal has escaped any damage from military operations and has suffered but little from wartime restrictions on the importation of farm supplies, especially of fertilizers. Throughout the war years, production of superphosphates, the country's most important commercial fertilizer,

remained above prewar levels, reaching an all-time high in 1944. The reduction in imports of nitrogenous fertilizer (50 percent of the prewar average in 1944) has only a limited significance because chemical nitrogen is seldom used on small grains. Neither labor nor draft power seem to have represented a problem, crop acreages this year being at or above prewar levels.

Production of wheat, the staple food of the urban population, is placed for the current year at 324,000 tons, or 62 percent of the prewar (1933-37) average. Smaller declines are expected in the output of rye, corn, and perhaps rice. Reduced production of pulses will cause a material deterioration in the Portuguese diet. Even the olive-oil output is expected to be small. The problems created by small crops are further aggravated by the inadequacy of distribution controls. The difficulty experienced by the Government in mustering available food supplies to meet the requirements of the urban population is suggested by the steady decrease in the amounts of rye and corn that are milled through official channels. Yet in years of drought, these grains, less affected by adverse weather, should make sizable contributions to the urban diet.

To maintain rations at current levels throughout 1945-46, Portugal will need to import about 330,000 tons of grain and the usual amounts of sugar (77,000 tons), oilseeds, and codfish. Canning of fish for export will hinge upon the availability of coal and containers.

Switzerland

Domestic production of food in Switzerland will provide approximately 1,800 calories per capita per day in 1945-46, compared with an average intake before the war of 3,150 calories, more than half of which derived from imported foodstuffs. Production this year will drop from the higher levels achieved during the war years mainly because of poor weather during the growing season. Frost in the early spring and heat and drought later in the season adversely affected grains, potatoes, fruits, and vegetables; whereas insufficient pasturage affected milk production and, by forcing the use of dry fodder, made premature inroads into the winter-feed supply.

In spite of the indicated decline, however, production will still be considerably above prewar levels. During the war Switzerland's production of bread grains increased by over 50 percent; that of potatoes and sugar beet was more than doubled. These gains more than offset a decline in the output of livestock products, which, in the case of milk, fell to about 85 percent and, in the case of meat, to about two-thirds of prewar levels.

Nevertheless, Switzerland's urban population has been heavily dependent upon outside sources of food throughout the war, and this dependence will be even more pronounced this year. The bread grain harvested in the summer of 1945 will probably last no longer than 6 months at the rate called for by the current low ration of 200 grams per day. Potatoes may not have to be rationed, but it is doubtful whether there will be enough to stretch the bread supply as in the past

by the addition of potatoes to bread flour. Domestic sugar production will supply between 20 and 35 percent of the annual sugar requirements, depending upon the amount of coal which can be made available to the processing industry from imports. Current rations are at the rate of 500 grams per month, with fairly generous allowances to producers of chocolate, candy, jams, and preserves, products which are also rationed.

The meat ration of 1,000 grams per month for urban consumers can probably be maintained out of controlled supplies. Butter production will again provide some 300 grams per month plus 100 grams of cooking butter, which may be purchased in place of other cooking fat at the choice of the consumer. Other fat supplies from domestic production are small, and without imports it is doubtful whether more than 50 grams could be added to the ration, which during the past 2 years has actually averaged about 650 grams per month. To maintain the butter ration may require a further diversion of milk from cheese production and a possible decrease in the ration of fat cheese, which heretofore has been at the rate of about 400 grams per month.

Sweden

Sweden may be characterized as self-sufficient in foodstuffs. Neither import needs nor export surpluses are significant. Yet the country exported sizable amounts of food to Finland and Norway during 1944-45. This was accomplished mainly through a reduction in stocks but also by reducing the meat and fat rations and, to a smaller extent, the bread ration. Stocks may now be expected, however, to have reached normal levels, and possible food exports in 1945-46 will of necessity be small.

The current crop outlook is fair. Fall-sown crops wintered well but were somewhat retarded by unfavorable spring weather. The outlook for the yield of winter wheat is slightly above, that of winter rye somewhat below, average. An official estimate, based on the July crop outlook places this year's potato crop at 2,200,000 short tons, which is 40 percent above last year's very poor crop and somewhat above the prewar average. Sugar production has been estimated a little higher than in prewar years. Pastures and hay fields looked promising in early summer--all this in spite of the fact that the 1944-45 fertilizer situation was less satisfactory than that of preceding war years, except for phosphate fertilizer.

Swedish cattle numbers, which last year were only some 5 percent below the 1937 total, may be expected to continue their upward trend. In spite of reduced feed-grain and potato supplies in 1944, hog numbers have been maintained, and an upward trend may well be possible in the coming year.

The milk yield per cow in Sweden fell from its prewar average of 5,400 pounds to 4,800 pounds in 1941-42 but has reached its prewar level again. An excellent hay crop in 1944, improved utilization of pastures as well as of silage, and the fact that Sweden was able to import some protein feed during the war no doubt account for this extraordinary situation. Total milk production is therefore expected to reach

5,000,000 short tons, only 4 percent less than in 1938-39. Butter production at about 110,000 tons is well above the prewar level, but a part of the increased output has been gained by a reduction of the fat content of milk for direct consumption. Total production of edible fats is roughly equal to total prewar consumption, including margarine from imported raw materials. Cheese production, which was sharply curtailed during the war, may be expected to increase. An official Swedish estimate places pork production for this year at 135,000 tons, that of other meats at 140,000 tons, and egg production will probably be below its prewar level by only a small percentage.

Swedish agricultural production during the coming year, therefore, apparently, will assure the country's food and feed needs, although some grain and feed imports may take place in order to utilize domestic supplies more effectively. A calculation of food consumption based on indigenous supplies shows that the country could supply to its people roughly 3,000 calories per person per day. This does not necessarily mean that consumption will be that high. Sweden is, as stated, following a policy of reducing domestic consumption in order to supply foodstuffs to neighboring countries and may be expected to continue this policy for some time to come.

Denmark

Even if no feed is imported into Denmark during 1945-46, the country, as in the war years, will have export supplies of livestock products--butter, bacon, beef, and perhaps some eggs--and it may also be able to export some sugar, while maintaining a very adequate diet for its population.

For the fourth consecutive year the Danish crop outlook is good, though a little below normal. A reduction in the rye acreage by about one-sixth compared to the preceding year is the only significant acreage change reported to have taken place. The growing season has been rather favorable. Grain yields are expected to go down a little, whereas sugar beets, potatoes, and feed roots promise better yields. Pastures and hay are reported in very good condition. The bread-grain crop will apparently be adequate for domestic needs; the sugar crop more than adequate at current rations.

Last year's output of animal products can no doubt be maintained on a purely domestic feed basis and an upward trend in hog numbers possibly instituted. During 1944-45 this trend was downward. The July 1945 cattle figure of 3,200,000 head is larger than the 1933-37 average and second only to the 1939 figure of 3,300,000 head. Cow numbers, not yet available for July, may still be below the 1933-37 level by a small percentage.

The milk yield per cow last year was around 5,700 pounds and can probably be maintained at this level. If the oilcake imports materialize which are under discussion now, a considerable increase in milk yields in 1945-46 should easily be possible. This again would mean a butter production of roughly 165,000 short tons instead of an estimated 138,000 tons. At the present level of rationing, Danish butter consumption

claims only one-half the estimated production (without oilcake imports). This means that butter exports of close to 65,000 short tons and possibly as high as 90,000 short tons may be anticipated. However, present discussions regarding the price for Danish export products in the British market will obviously influence the final export figure.

The same applies to the pork situation, where a production from domestic feed of 155,000 tons may be conservatively estimated, on which basis pork exports of 55,000 to 65,000 tons may be possible. If marketing conditions are favorable and grain imports possibly permitted, production could well be increased by some 25 percent, all of which could go into exports. Slaughtered and live cattle were exported to Germany during the war, amounting to an equivalent of 40,000 short tons of beef in 1944. Production of beef and veal this year may be estimated at 130,000 - 135,000 short tons, or almost the same level as in 1944, and exports of 45,000 short tons could be envisioned. But at the present stage of negotiations, insofar as they have been reported, arrangements do not appear to have been made for such exports, and practically no beef seems to have been exported since the liberation.

Questions relating to markets (prices, currency in which payment is obtained, etc.) may prove the limiting factor with respect to Danish agricultural exports this year rather than physical ability to produce. The actual level of domestic consumption in its turn will depend on decisions determining the level of exports, but it is to be anticipated that both production and consumption will be adjusted to export possibilities in such a way that domestic per capita consumption will not go much below 2,800 or above 3,000 calories per day.

French North Africa

Food production in French North Africa has been cut to unusually low levels by a severe drought. This region, which before the war (1933-34 - 1937-38) had an annual average net export of about 500,000 tons of wheat and nearly 200,000 tons of barley, must import over 2,000,000 tons of grain in 1945-46 if minimum requirements are to be met. There will also be a deficit in fats and oils this year. Sugar requirements will have to be met, as always, by imports.

The tardy arrival of the autumn rains in 1944 in many parts of the region reduced the sown acreage on native farms, and the dry weather of spring and summer hit their fields especially hard. While European farmers, with superior implements, planted about as much land as before the war, they hold but little of the cultivated area, and their yields were also poor.

Production of wheat and barley, the chief foods of French North Africa, which accounted for 84 percent of total sown area in the prewar period, are officially estimated to occupy five-sixths of their prewar acreage in 1945. Combined output of these all-important food crops is officially placed at only one-fourth of the prewar average. Many native producers either lost their crops or could not gather enough grain to carry them over until the next harvest.

Assuming that production of wheat and barley has not been underestimated, imports of 2,000,000 tons of wheat would still leave total supplies for food, feed, and seed below the prewar level; with the increase in population, per capita supplies in 1945-46 would amount to 330 pounds compared with an average of 465 pounds during 1933-34 to 1937-38.

Output of olive oil, another staple item in the diet, will also be well below average. A decline from last year's high level was to be expected, and the decline has been accentuated by the drought. Edible olive-oil production this year will probably amount to little more than half the average for 1930-31 to 1939-40, when French North Africa was barely self-sufficient in vegetable oils. With production at low levels, the difficulty of commercializing supplies and distributing them equitably will increase.

On the other hand, some relief from the meat shortage in urban areas has already been reported. Pastures burnt out early, and feed and forage supplies are abnormally short. This has led to increased sales of livestock for slaughter. Such sales and high mortality may be expected to reduce livestock numbers well below the high levels prevailing during the war years.

Soviet Union

The current food situation in the Soviet Union, which has been extremely tight for the civilian population during the last 4 years, is slightly improved. Although the small official rations, ranging in Moscow and most other large cities from approximately 800 calories for dependents to 1,900 calories for workers in heavy industries have not been changed, an improvement has taken place in the fulfillment of the allotment of rationed foods.

In contrast with prices for rationed goods, which are relatively low, the prices of foodstuffs in so-called Government commercial stores, established by the Government in Moscow and some other large cities to sell goods on a nonrationed basis, are very high. Despite the fact that prices in the Government commercial stores were reduced repeatedly during the past year, they are still high enough to prohibit purchases in sizeable quantities by the average citizen who is not entitled to the special discounts given some selected groups. At the rate of exchange of 12 rubles to a dollar, a pound of mutton in the Government stores cost, late in August, approximately $4.50, pork $11.30, beef $6.40, butter $15.10, lard $9.80, granulated sugar $9.40, one egg $0.75, and milk $2.40 per quart.

Although these prices are very high, they are from 30 to 60 percent lower than they were in the summer of 1944. Some decline also took place in the extremely high food prices in the open and uncontrolled private markets, which for the Soviet Union as a whole are a more important source of supplementary foodstuffs for the urban consumer than the Government commercial stores. Thus, somewhat more food for his money is available to the average consumer to supplement his meager rations.

Some improvement in the food situation can be expected during the remainder of this year and the first half of 1946, its extent depending primarily on the 1945 harvest. Information on the current harvest has been fragmentary so far, and precise quantitative estimates cannot be made at this juncture. Indications on the whole seem to point to a somewhat larger domestic supply than existed in 1944-45, but the population will also increase with the return of war prisoners, displaced persons, etc.

For the first time since 1939-40, fall and spring sowing for the 1945 harvest took place throughout all the Soviet territory, including land liberated from the enemy. But the work was still hampered by wartime shortages of draft power, labor, fertilizer, etc. The Government's 1945 plan announced in the spring of this year called for an expansion of 8.1 million hectares (20 million acres) in the acreage under all crops, compared with an increase of 12 million hectares (30 million acres) in 1944. No estimate of the total acreage sown in the fall of 1944 for the 1945 harvest is available. There are some indications, however, that fall sowings may have been smaller than those of 1943-44. A considerable expansion of fall sown crops especially in Eastern regions, took place

during the war years. This expansion was primarily in winter rye and was accomplished partly at the expense of spring wheat, the typical crop of this zone. A reverse shift to spring wheat in 1945 was indicated.

Despite the delayed spring, the Government program for sowings in the spring of 1945 was successful, and a slightly larger acreage was sown than was specified in the plan. By June 15, reports stated that 10.6 million more hectares (26.2 million acres) of spring crops had been sown than in the preceding year. This increase, however, may have been partly offset, as pointed out above, by the reduction in the fall sown acreage. The fact should be noted that the above increase applies to the whole territory of the Soviet Union, including the Baltic Republics as well as the Provinces that were under Polish or Rumanian control prior to 1939-40.

Notwithstanding the expansion which took place during the past 2 years, the crop acreage is still considerably lower than the prewar average in regions which suffered from war devastation. They accounted roughly for 40 percent of the prewar Soviet crop acreage exclusive of the Baltic Republics and Provinces formerly under Polish and Rumanian control. This reduction, of course, was only partly offset by the small acreage increase in the territory that was not invaded. In the Ukraine, for instance, the 1945 spring sown acreage on collective farms, although 18 percent above the 1944 figure, is about 22 percent below that of 1940. The sugar beet acreage, which is heavily concentrated in the liberated regions, was reported at about four-fifths of the prewar figure. The gap in livestock numbers is believed to be even greater. In such recently incorporated surplus producing regions as Bessarabia and the Baltic Republics, the subdivision of larger farms and the destruction caused by the war, are bound to affect production adversely.

Weather conditions during the past year were, on the whole, not unfavorable to crops. During the winter of 1944-45 precipitation was lighter than normal in the European part of the Soviet Union, and snow cover, acting as a protection for fall-sown crops, was light for this reason. There is no evidence, however, of unusually severe frosts. The belief is that the winterkill of crops planted in the fall of 1944 for harvest in 1945 was no greater than in the previous year. In a majority of the regions of the Soviet Union the 1945 spring came late, with the result that winter crops had a late start. Precipitation during the spring and through the month of June, however, was sufficient, and the growth of grain is considered good, especially in the Central Black Soil Area, the Ukraine, and the North Caucasus. In northern European Russia, where rye is the principal grain crop, the cool rainy weather that prevailed all through the summer may have resulted in some deterioration of yields.

Except in Siberia, where germination was delayed, spring crops made a good start as a result of satisfactory moisture condition during the springtime. The fact that the important semiarid zone apparently had adequate rainfall augured well for crop development in 1945. But heavy

rainfall may have caused difficulties during the harvest in Siberia, where even in more normal years the drying of grain is quite a problem. Lack of sufficient draft power, which was the main cause for the decline in acreage, continued to hamper harvesting operations. Much concern was voiced in the Soviet press over the weed-infestation of the fields. These and other factors, which were responsible for the wartime deterioration of the agricultural technique, make it unlikely that the prewar level of crop yields was reached in 1945.

For the Soviet Union as a whole, the grain situation in 1945-46 probably will improve slightly as compared with 1944-45. Better potato and vegetable crops than in 1944 are also expected. The supply situation for the latter crops will be aided by the larger number of victory gardeners and victory gardens.

The sugar situation is showing improvement because of an increase in sugar acreage and reconstruction of sugar refineries. It is believed that greater quantities of livestock will be available for slaughter than during 1944-45 with consequent increased supplies of meat. The situation as to dairy products and fats, where the most acute shortages have existed, will probably not be worse than in 1944-45, and some improvement may even take place, especially if Manchurian soybean supplies should become available. Such foodstuffs as will be obtained from other occupied territories will probably be used primarily to cover the military requirements, including those of the armies of occupation. On the other hand the considerable lend-lease supplies for this purpose will no longer be available.

The Middle East

Crop conditions during this year were generally favorable in all countries of the Middle East, except Turkey, and early indications are that total food production in this area will be at least 10 percent above the prewar average and slightly above that of 1944-45. In Turkey drought has reduced crop yields, particularly of cereals, but the carry-over of foods is sufficient to meet all domestic requirements and to permit some exports of cereals, fruits, and nuts. In view of the generally favorable conditions in other countries of this area, the area as a whole, this year apparently, will be a net exporter of bread grains, rice, fruits, and nuts, and will require only minor supplies of food from outside sources.

Egypt

The production of food crops in Egypt in 1945-46, according to early indications, will exceed that of 1944-45, when it was about equal to the prewar average. The wheat crop last year was unusually short, but Egyptians were able to maintain their normal consumption by importing substantial quantities of wheat. At the same time they exported large quantities of rice, durra, and sugar, which were in abundant production.

More generous quantities of imported nitrogenous fertilizers, upon which Egyptian agriculture is dependent to a high degree, were allotted to food crops this year. Despite some damage by rust, production of wheat and barley is estimated to be much nearer normal than was the previous short crop. The corn crop, the source of staple diet for the bulk of the population, also promises to be abundant. Consequently, if present relatively high extraction rates are maintained, Egypt is expected to be self-supporting in bread cereals.

The drastic curtailment of the cotton crop during the war has resulted in a shortage of cottonseed oil, but this shortage will continue to be made good by imports of cottonseed from the Anglo-Egyptian Sudan. The sugar yield is reported to be very good, and production is expected to be even greater than the large crop of the previous season, leaving a substantial surplus for export. Production of dry legumes, mainly beans and fenugreek, is likely to be slightly less than last year but sufficient for domestic needs. In prewar years Egypt was a large exporter of onions, but during the war years production has declined and was only sufficient to cover local consumption.

Conditions for the rice crop have been favorable, and production is expected to be as large or even larger than in the past year. If this crop is realized, exports should exceed the 170,000 tons of milled rice exported from the previous crop.

Turkey

Although crop production in Turkey this year is expected to be somewhat smaller than that of the two preceding years, owing to drought, the total output of food may equal that of prewar years. Turkey, moreover, is approaching the new harvest with large carryover stocks of the major food crops harvested last year. Of this carryover, government stocks alone include some 750,000 tons of cereals. Substantial quantities of grain, 100,000 to 150,000 tons, have been declared available for export by the authorities. Livestock, also are an important source of food in Turkey. Since the severe winter of 1941-42, livestock numbers have been increasing, and continue to be in good condition.

The larger acreage planted this year to wheat and barley (amounting to an increase of about 10 percent over last year) will tend to offset the reduction (in yield) in the present harvest caused by drought. With increased acreage, the production of sugar beets and of sugar is expected to equal the large output of last year, and the stock of sugar at present is estimated at 30,000 tons. Severe storms have damaged olive and fruit trees; consequently, production of these crops is expected to be below average.

Taking all factors into consideration - some reduction in grain, fruit, and olive crops, owing to inclement weather; substantial carryover stocks; and good livestock condition - Turkey apparently can easily take care of its major food requirements until the next harvest (the summer of 1946). Furthermore, there may possibly be some grain and livestock products for export, in addition to the usual dried fruits, nuts, and fish. Unless prices on sugar are lowered, and consumption by the masses rises in consequence, there will also be some surplus of this commodity for export.

Iran

Current indications point to a much larger outturn of food crops this year than last. During 1944-45 a severe drought in the southern Provinces greatly reduced the output, but it still was sufficient to meet the country's needs and leave some amounts for export.

The harvested acreage of wheat and barley, the two main food crops, this year is estimated to equal that of last year, and excellent crops are expected. Furthermore, the transportation facilities for the collection and distribution of grain have been improved so that the prospects for collection this year are much more favorable than in 1944-45. In general, it seems certain that total production of food will be sufficient to take care of domestic needs until the next harvest, leaving some grain and substantial quantities of dried fruits and nuts for export.

Other Countries

In the remaining countries of the Middle East the food outlook also is promising. Normal crops, which will be sufficient for the major domestic needs, are being harvested in Syria and Lebanon. In Palestine good weather conditions prevailed during the growing season, and above average crops of wheat and barley are being harvested. Summer crops are in excellent condition and promise good yields. Vegetables are plentiful and potatoes fairly abundant. Prospects for the olive crop are very favorable, and present indications are that the citrus crop will be satisfactory. Livestock are in excellent condition, and fodder and grazing plentiful. Although Palestine is normally a deficit producer of food, substantial amounts will be available for importation from neighboring countries, especially from Trans-Jordan and Iraq. The latter normally exports large quantities of livestock, dates, and barley. The barley crop this year is estimated at 275,000 tons over and above domestic consumption requirements.

India and the Far East

Total food production in India and the Far East during 1945-46 may be about 5 percent less than the prewar average. In India and Free China, early estimates indicate an approximate average output of food crops. Rice and wheat production in India may be slightly above average; other crops are about average, or slightly below. Rice production in China is somewhat smaller than in prewar years, but in Free China the production of wheat and sweetpotatoes has increased substantially. Present indications are that each of these two countries will need its normal prewar imports of about 2,000,000 tons of cereals during 1945-46 in order to relieve the food shortages in urban areas.

Shortages of fertilizer and labor in Japan and Korea are believed to have decreased food production considerably in the war years; production in 1945-46, consequently, may not exceed 80 percent of the prewar average. Japanese production will fall considerably below minimum needs; whereas in Korea, which ordinarily exports rice to Japan, food production is expected to approximate domestic requirements.

Production in most of the remaining countries of the Far East also declined considerably during the war. Japanese occupation cut these countries off from markets for their surplus products in outside areas, and naval warfare greatly decreased the trade between countries within the area.

Burma, Siam, French Indo-China, British Malaya, Netherlands Indies, and the Philippines comprise one of the principal surplus food-producing areas of the world. In prewar years these countries, together with Manchuria and Formosa, not only met most of the needs of deficit producing countries of the Far East but they also exported substantial quantities to

other areas of the world. They provided over 90 percent of the rice, one-third of the vegetable-oil products, and one-fourth of the sugar entering world trade. They also exported large quantities of cassava, tea, coffee, and spices. Manchuria was the principal soybean exporter of the world, and Formosa formerly supplied large quantities of rice and sugar to Japan. The exports of Burma, Siam, and Indochina consisted almost exclusively of rice, whereas those of the Philippines, the Netherlands Indies, and British Malaya consisted of such items as sugar, copra, palm oil, and cassava. Because of the concentration on production of export crops, the latter three countries were either deficient in rice or barely self-sufficient.

Although production in these surplus producing areas has declined sharply, some quantities of food probably will be available for export as soon as shipping space becomes available. Some rice is believed to be available in Burma, Siam, and Indochina, and the new crop that will be harvested late this year and early next year is probably in excess of domestic requirements. Soybean production in Manchuria is believed to have been fairly well maintained and some copra may become available from the Philippines after the commodities so urgently needed by the producers can be shipped into the country. Sugar production in the Philippines has been reduced below domestic needs and production in Formosa and Java also has probably declined sharply; therefore little, if any sugar will be available for export from this area.

The stocks of food on hand in surplus areas will partially offset the lower level of production in this area, but imports from outside sources evidently will be needed if minimum requirements of the deficit areas are to be met. The extent of these needs, however, cannot be determined until stocks and current levels of food production have been more accurately ascertained.

India

India's food position in 1945-46 is not too secure, and imports of at least 1,000,000 tons of rice and 900,000 tons of wheat will be required in order to maintain consumption at last year's levels.

Preliminary indications are that the current rice crop will not be so large as last year's harvest, but it may be larger than the prewar normal of 28,500,000 tons of milled rice. There is evidence that a combination of an earlier drought and recent floods will reduce the rice crop in the principal rice-producing areas of Bengal and Bihar. A short rice crop in these Provinces, which normally account for about 45 percent of the total crop, might have serious repercussions on the over-all food position of India and the Government's ability to maintain food controls. The wheat and millet crops of nearly 12,000,000 tons each and the corn and pulse crops of 3,000,000 tons each are about normal. The barley and gram crops, on the other hand, are estimated to be considerably below normal outturns of 2,000,000 and 2,000,000 tons, respectively.

Before the war India's rice requirements were estimated at 30,000,000 tons. About 1,700,000 tons were imported from Burma, and about 600,000 tons were exported. The fact that India might produce nearly 30,000,000 tons of rice this year does not minimize the need for rice imports, because of a substantial increase in Indian food consumption during the war. This resulted from: (a) an annual increase in population, estimated at five million; (b) increased consumption on the part of producers as well as by consumers engaged in expanded industrial activities; and (c) increased demand for food for the armed forces. If the current rice crop falls below the early estimate, India will be confronted with a serious food problem, which will be aggravated by limited outside sources of supply. Burma will not be in a position to export to India in the prewar volume of 1,700,000 tons. The total surplus of Burmese rice from this year's crop and from stocks now on hand may not greatly exceed a million tons, and other claims for part of this rice are likely to be made by the rice-deficit countries of southeastern Asia and other parts of the Far East.

India's food situation in 1944-45 was better than in the previous year, even though no rice was imported. The explanation lies in the bumper rice and wheat crops of 1943-44 (33,000,000 and 12,000,000 tons, respectively) and the good rice crop (30,000,000 tons), of 1944-45 when, also, wheat imports approximated 900,000 tons. On the basis of the crops already harvested, India's food position in 1945-46 will be less favorable than in the previous year, and domestic production will have to be augmented by at least a million tons of rice and a volume of imported wheat equal to that of last year.

China

The food situation in China in 1945-46 is expected to present no serious problem if the current year's production is supplemented by about 2,000,000 tons of imported food, or a volume equivalent to prewar average imports. The expected food shortages can be met by such principal import items as rice (750,000 - 1,000,000 tons), wheat (500,000 - 600,000 tons), soybeans (100,000 - 200,000 tons), fish and meat (50,000 tons), fats and oils (25,000 tons). Lacking such imports, however, the large population centers along the coast, where the situation has long been serious, will be faced with serious shortages.

The production of rice, the most important of all the food crops in the unoccupied area of China, is estimated at somewhat less than the 1944 production of 39,000,000 tons of rough rice, which is about 10 percent smaller than the prewar average. Production of wheat is approximately 10 percent smaller than that of 1944, but it is still nearly a third larger than the prewar average of 12,000,000 tons. There has been at least one area of serious drought, centering in Shensi, it extended eastward and northeastward into the liberated territory of southern Hopei and western Honan. In these Provinces the current wheat crop is reported to have been seriously reduced, and seeding of winter wheat has been delayed. For most of the rest of unoccupied China fairly good crops seem assured.

The situation in what was formerly Occupied China is less promising. Even approximate estimates of production are as yet unavailable; but reports of reduced acreage and retarded growth, owing to a long continued dry spell, over extensive areas in the northwest, during the spring and early summer point to a reduced food output. Only with exceptionally favorable crop conditions and the ability to move surplus crops can the area which was unoccupied aid in supplying any considerable share of Occupied China's needs.

Present indications are that prevailing yields on the 1945 crop area of Unoccupied China will be sufficient only to supply the food needs of the people within its confines. Although the unoccupied area in prewar was a small exporter of food, supplies for export have been reduced by the large influx of people from Occupied to Unoccupied China before the surrender, estimated in 1943 at 11 million. Transportation facilities also are likely to be disrupted and overburdened with unusual transportation requirements.

The Japanese surrender, obviously, will have immediate as well as a long-run beneficial effects upon China's food situation. The immediate advantages derive from the fact that the enemy will no longer control the food supplies for his own use. Certain surplus stocks formerly held by the Japanese may be made available to China. The Japanese military will not continue to live off the land of China and military operations will not damage crops in the field nor ruin stores of grain. From a long-run point of view, prospects for a more nearly normal planting of winter crops throughout China are much better than at any time since the Japanese invasion.

Manchuria

Manchuria is one of the few Far Eastern or southeastern Asiatic countries which enjoyed an ample food supply before and during the war. It will remain in that position in 1945-46.

Soybeans are the principal food crop which Manchuria produces greatly in excess of domestic needs. But there is also normally some exportable supplies of kaoliang, millet, and corn. Export of soybeans before the war averaged about 75,000,000 bushels. On the other hand, Manchuria is a deficit wheat producer, and approximately 18,000,000 bushels were imported annually before the war, largely as flour.

Production of soybeans declined during 1940-41, and during 1943 there was a drought that also reduced production. Indications are that production in 1944 reached about the prewar level. At the same time, strict measures were taken to collect a large part of the harvest. It is uncertain, however, whether all exportable supplies of these beans were shipped out, since transportation became an increasingly difficult problem. Liberation may, therefore, find some stocks of soybeans in Manchuria. A total of about 450,000 tons of kaoliang, millet, and corn were exported before the war, and appreciable quantities of these grains apparently were exported thereafter, mainly to Korea and Japan.

The end of hostilities makes available for export the normally large surplus of soybeans and oil and the smaller surplus of other grains available in Manchuria. The 1945 production is probably below the prewar level, but on the 1941 level, there should be available for export about 40,000,000 to 50,000,000 bushels of soybeans. Considering the possibility that stock

piles of this commodity will be found in Manchuria, the exportable surplus is not likely to be greater than stated.

Although a substantial quantity of wheat flour was imported into Manchuria before the war, this quantity will not constitute an absolute requirement following liberation. An increased production of rice in southern Manchuria will meet a part of this requirement, and other cereals grown there can be substituted if wheat is not available.

Formosa

Agricultural production in Formosa during 1945-46 will be sufficient in quantity to provide most of the foodstuffs needed by its dense population and to permit substantial exports of rice and sugar and perhaps some exports of fruits and dried sweetpotatoes.

Before the war, in addition to producing most of its own food needs, Formosa supplied Japan with sufficient rice to provide about 35 percent of the 2,000,000 tons that Japan had to import in order to meet its total requirements. The Formosan rice crop in prewar years averaged 1,400,000 tons of brown rice annually, of which about half was exported to Japan. The termination of hostilities should make substantial quantities of rice available to the United Nations, although rice production, along with other crops, probably has shown a downward trend in recent years. On the assumption that this year's rice crop amounted to 1,100,000 tons and that no important accumulation of rice stocks from previous crops now exists, the surplus available for export should amount to 400,000 tons.

In prewar years Formosa's output of sugar was sufficient to supply the major part of the needs of the entire Japanese Empire. Production averaged between 700,000 and 1,000,000 tons annually, most of it being exported to Japan. Local consumption averaged only about 50,000 tons annually. As in the case of rice, the termination of hostilities should make sizable quantities of sugar available to the United Nations. Little is known as to the extent of damage to sugar mills from aerial attacks, or the length of time that will be required to repair damaged mills. But even with a 50 percent reduction in mill capacity, Formosa should still be able to provide an exportable surplus this year of between 400,000 and 500,000 short tons.

In comparison with its ample supplies of rice and sugar, Formosa is deficient with respect to wheat. During the 1930's wheat imports averaged about 1,200,000 bushels annually. In Formosa, however, wheat may be considered largely as a luxury item, that cereal being consumed mainly as a partial substitute for rice, or in order to vary the diet.

Korea

Information relating to food production and consumption in Korea is too incomplete to give a clear picture of the situation. The information that is available, however, points to a very tight food situation in 1945-46. The Japanese administration in Korea reported earlier in the year (June 1945) that food conditions in the rural areas were extremely difficult. A similar, if not worse, situation prevailed in the urban

cereals. Furthermore, the fragmentary data available on the 1945 crops indicate that the situation will not be eased in the coming year, even if rice exports should be much smaller than in the prewar years.

The factors that tended to reduce food production and consumption in Japan during wartime operated in the same direction in Korea. The country's most important single crop and principal food is rice. Not only were the attempts to increase its production during wartime a failure, but all efforts to maintain it at prewar levels also were unsuccessful. Official figures of doubtful validity show a decline in rice production during 1942-44 as compared with that of the preceding years. No data are available on other food crops, but it is safe to assume that their output was below prewar levels.

The rice crop of 1944 was officially estimated at 16,000,000 koku or about 2,600,000 tons. In view of the shortage of fertilizer, poor weather conditions, and the deterioration of other factors of production, the crop will probably decline by 5 to 10 percent. If none of Korea's 1945 rice crop is sold to Japan, the amount of rice available to the Koreans in 1945-46 will be the smallest since 1941. On the assumption that 100,000 tons of rice may have to be shipped to Japan to cope with a probably critical food situation, Korea might be expected to have at its disposal the smallest volume since 1938.

The 1945 crop of other cereals is also less than average. The wheat crop was officially estimated to be 40 percent smaller than the prewar average (10 million bushels), or at only 6,000,000 bushels. In expectation of poor crops, grain imports from Manchuria has been planned, amounting to 332,000 tons for the quarter ending June 1945. Only 60 percent of this amount was received during this period, and strong representations were made by the Japanese administrators of Korea, not only for the hastening of shipments to make the quota allotment, but also for further increased shipments following the fulfillment of the quota.

The cessation of hostilities put an end to all such shipments, at least for the time being. With no rice or other grain stocks carried over from previous years and with agricultural production reduced in 1945, Korea's food position, beginning with the spring of 1946 will prove a difficult one, even though exports to Japan are drastically curtailed or eliminated.

Japan

The end of hostilities finds Japan confronted with a serious food situation with no prospect for immediate improvement. With the loss of its food-exporting colonies, the country will have to depend entirely on its own food resources, and it is not likely that Japanese food production this year will be large enough to provide the people with even as much as their reduced wartime rations, which were made up of domestic production plus imports. The current food situation can be traced to Japan's food problems before the war, the deterioration of production facilities during the war, and the complete elimination of important sources of supply caused by Japan's defeat.

The over-all 10 percent cut in the staple food ration announced in July 1945, coming as it did only 2 weeks after a sharp curtailment in the miso (bean paste) and shoyu (soy sauce) ration, is one of the highlights among the existing difficulties. Even more important is the poor crop outlook for 1945. This year's domestic production will supply an average per capita consumption of perhaps not more than 1,600 calories.

In the case of the all-important rice crop, prospects are especially poor not only because of shortages in production facilities but also because of unfavorable climatic conditions. Early in the season crop prospects suffered from drought. In addition, during the third week of September the crop was further damaged in a number of regions as a result of the typhoon. The extent of the damage has not been fully ascertained as yet, but this year's crop is likely to be at least 10 percent below that of last year and 15 percent smaller than the average for 1932-36.

The per capita food intake in Japan before the war averaged between 2,300 and 2,400 calories, but last year it was estimated at only 2,200 calories. The cut in staple rations in the summer of 1945 may have reduced the estimated intake, for the country as a whole, to about 2,000 calories. Numerous references to food substitutes and maldistribution in the latter part of the war are difficult to translate into quantitative terms. Yet, taking all factors into consideration, the food situation, especially of the urban population, probably is even worse than indicated by the low estimate of average intake.

The 1944-45 food availability of 2,200 calories was made up of 1,750 calories produced domestically and 450 calories supplied by imports. Should Japan be prevented from importing food during the coming year, Japan's domestic production of approximately 1,600 calories per person daily will be 400 calories short of the average per capita wartime intake in the summer of 1945 and 700 to 800 calories short of the prewar intake.

The seriousness of the food situation this year becomes even more apparent when a necessary distinction is made between the estimated average national intake and the actual intake by different groups of the population last year. In 1944-45 the farmers consumed an average of 2,300 calories as against 1,800 calories by the urban population. If Japan should be compelled this year to rely solely upon domestic production, the farmers' food intake will continue to be nearly the same as last year. In that event the urban population will have to subsist on a per capita daily intake of perhaps not more than 1,300 calories.

Prewar situation

Before the war Japan proper was a deficit food producer, the deficit amounting to approximately 15 percent of its total consumption. The principal shortage was of rice. Imports, which supplied 20 percent of all the rice consumed, were a basic part of the country's supply system. Korea and Formosa, Japan's former colonies, supplied most of these rice imports. Japan produced only 30 percent of its important soybean requirements, and Manchuria supplied the remainder. In addition, three-fourths of the sugar consumed was imported from Formosa. It is only by virtue of these imports from colonial possessions that Japan achieved self-sufficiency in foodstuffs before the war.

Domestic production and food imports, plus a huge fish catch that supplied the average Japanese with 95 pounds of fish per year during the 1930's, accounted for an average per capita consumption estimated at between 2,300 to 2,400 calories. An analysis of its composition reveals, however, glaring deficiencies. Food of vegetable origin, rather than animal, predominated. A diet of this nature is low in efficient protein, minerals, and vitamins. This is especially true when, as in Japan, many fodds are processed in such a way as to reduce their content of the above mentioned nutrients.

Wartime situation

The war imposed new burdens upon Japan's food production facilities in consequence of shortages of manpower, draft power, fertilizers, farm equipment, shipping and internal transportation. Numerous measures enacted with a view of increasing production above the pre-1939 level were not successful. Rice production could not be maintained at normal levels, much less be increased. There is evidence, however, that potato production has expanded somewhat during the war years.

The difficulty of shipping sugar from Formosa, which became most pronounced in 1944, and the outright loss of the sugar-producing South Sea Islands affected most adversely Japan's sugar supply. The loss of Okinawa reduced the supply of sweetpotatoes for Japan proper by some 400,000 tons. Fish, the principal source of animal protein, was the principal casualty of war, from the point of view of Japan's supply of protein food. The shortages in manpower, fishing craft, fuel and the war risk, reduced the catch from 3,000,000 tons (1936) to an estimated 1,500,000 tons in 1944. This drastic cut undoubtedly affected the quality of the Japanese diet very adversely, because the per capita consumption last year hardly exceeded 40 or 45 pounds as compared with 95 pounds in 1936.

Furthermore, attempts to exploit the conquest of Burma, Siam, and French Indochina were not successful. Before the war these countries exported an average of 6,500,000 tons of rice annually, very little of which was shipped to Japan. If the bulk of this supply had been made available to the Japanese, Japan's food position would have been secure. In reality, the shortage of shipping, and the vulnerability of shipping lanes and port facilities to sea and air attack, resulted in much smaller takings than were originally anticipated. By 1945, imports from south-eastern Asia, became a trickle. Because of the tight food situation in Korea, its rice exports to Japan were materially reduced. The only relief to the Japanese came from the increased shipment of soybeans from Manchuria.

Food prospects for 1945-46

With Japan's defeat and the loss of the food-supplying colonies, the country will have to fall back upon its own food resources. It is not likely, however, that in the immediate future Japanese agricultural production will be large enough to provide the Japanese people with prewar or even the reduced wartime rations.

If under the stress of a grave food situation in the coming year the Allied Powers should permit Japan to import food, these imports would serve the best purpose if made up largely of such staples as rice,

soybeans, and sugar. On the basis of an average per capita rice consumption of 240 pounds (as compared with 350 pounds before the war) and a population of 74 million, Japan would need a total of 8,800,000 tons of rice. Should the 1945 crop show a reduction of only 10 percent below the 1944 crop, which was estimated at 9,500,000 tons, Japan would have to import approximately 800,000 tons of rice. This estimate is predicated on the assumption that rice stocks in Japan are either absent now or are at a very low level.

Rice production in the Far East and southeastern Asia and demands made upon it will not be sufficient to supply all of Japan's deficit because of demands made from other sources. It is questionable if both Korea and Formosa could furnish more than 200,000 or 300,000 tons of the estimated requirement. French Indo-China, Siam, and Burma are the sources from which about 500,000 to 1,000,000 tons could be tapped. Imports of wheat from Australia or North America as an alternative course in making up the rice deficit are doubtful. Furthermore, allowance is not made here for the prior claims of China, India, Malaya, the Netherlands Indies, and the Philippines upon the limited surplus rice supplies of southeastern Asia.

As regards soybeans, Japan will be in need of about 20,000,000 to 30,000,000 bushels. Normally, there should be no difficulty in importing the mentioned volume from Manchuria, since the latter may have a large surplus, whereas for the time being the European market may still remain outside the reach of Manchuria. At present, however, Chinese and Russian requirements are likely to cut down the estimated surplus to a point where Japanese needs could be met only in part.

Formosa probably will be unable to supply sugar to occupied Japan even if the permissable amount to be shipped to Japan is reduced from the usual 800,000 to 400,000 tons. Possible demands made upon Formosa by China, as well as a probable sharp reduction in output because of exigencies of war, are factors that might not permit the attainment of this sugar-requirement goal. A reduction in the per capita consumption of sugar in Japan, if none could be obtained from the Netherlands Indies 1/ to cover the deficit (the difference between the 400,000 tons and what can be obtained in Formosa), would have an adverse effect upon the total food intake of the Japanese people in 1945-46, since normally sugar consumption constituted between 6 and 7 percent of the total food intake.

1/ According to reports from the Philippines no sugar will be available for export in 1945-46.

Philippines

Food production in the Philippines in 1945-56, according to the best available information, will be considerably less than in prewar years. At that time, the Islands exported large quantities of sugar, copra, and coconut oil, but they were not completely self-sufficient in foodstuffs that form the bulk of the country's diet. The main foods in the Philippines are cereals, especially rice and corn, fish, root crops, and vegetables. During 1935-39 the Philippines on an average imported 57,000 tons of rice, 95,000 of wheat flour, in addition to appreciable quantities of meat and dairy products, canned fish, and vegetables.

During the Japanese occupation the production of the important export crops was drastically reduced. The production of rice, the most important crop for domestice consumption, also declined substantially. Corn, root-crops, legume, and vegetable production increased in varying degrees. However, the total supply of locally produced food will be substantially below Philippine requirements because of the serious decline in rice output.

Although most parts of the Philippines were liberated early enough to permit farmers to prepare the fields for the next rice crop, Philippine agricultural experts estimate that shortages of manpower, work animals, seeds, and plows, together with disturbed social conditions, especially in the rice Provinces north of Manila, will result in a rice area of 3,125,000 acres, or 60 percent of normal. The crop may drop even below 60 percent of normal because of drought conditions during the planting season.

With regard to corn, the second most important food crop, Philippine authorities expect an increase in production over that of prewar years, especially in the food-deficit areas of the Visayan Islands, where sugar land on Panay, Negros, and Cebu and land formerly not cultivated at all has been planted to corn. Some of this again may be offset by a decrease of corn production in the Cagayan Valley, the scene of recent fighting. Reports state that a Government campaign to encourage a greater production of corn, root crops, and vegetables has met with success, and a reasonable expectation is for at least a 30-percent increase in the corn production of the Philippines as a whole.

Many Filipinos accustomed to a rice diet have been forced to substitute sweetpotatoes, cassava, and other starchy root crops, beans, and nonstarchy vegetables for rice. The following wartime increases in crop area as compared with prewar days have been estimated: Sweetpotatoes 100 percent, cassava 30, other root crops 20, beans 10, and other vegetables (produced in victory gardens) 500 percent. The major increases in production seem to have taken place in the food-deficit areas of prewar days which formerly concentrated on export crops.

The expected shortage of rice will most likely be reduced substantially by the increase in the production of corn, root crops, legumes, and other vegetables. Nevertheless, during the coming year imports of rice and wheat flour will have to be substantially increased over those of prewar days in order to make up for that part of the decrease in rice production which is not taken care of by increased corn, root-crops and vegetable production if the food supply of the Islands is to be maintained at prewar levels.

The food situation with regard to sugar, fish, and meat products has deteriorated greatly since 1941. In normal times the country produces over a million tons of sugar, most of which is exported. The average annual sugar consumption during 1936-40 amounted to 165,000 tons of centrifugal sugar, muscavado, and panocha. Estimates indicate that a production of less than 25,000 tons of centrifugal sugar can be expected during the 1945-46 crop because of lack of sugarcane. Even this figure may be too high unless the crushing of cane for the manufacture of black-market alcohol can be stopped. Small-farm production of muscavado and panocha seems to have increased, since the producers can obtain high prices for their brown sugar, but the increase is not large enough to take care of the lack of centrifugal sugar in the domestic market.

The inland and marine fishing industry supplied the country with considerable quantities of fish, and estimates indicate that the value of fish products exceeds that of the rice production. Fishponds, especially in Luzon, have been greatly depleted because of the difficulty of procuring bangus fry necessary to stock them, and because of neglect or destruction. Even more serious is the set-back of the ocean fishing industry, which was largely controlled by Japanese interests. Japanese-controlled fishing companies supplied, for example, some 80 percent of the fresh fish consumed in Manila. A high percentage of the motorless crafts and nearly all motor-driven boats were destroyed. In addition, a large percentage of the fishing gear was lost and has to be replaced before production can reach anything like normal. The recovery of the fishpond industry presents much less of a problem than that of the ocean fishing industry.

As a result of the war the Filipinos lost a large percentage of their livestock, which reduces the quantities of meat and other animal products available for consumption. Losses of carabaos have been estimated at 52 percent, cattle 62 (the herds of the ranches in Bukidnon were practically wiped out), pigs 65, chickens 75, and goats 42 percent. The reduction in the number of carabaos and cattle is especially serious, because loss of animal power affects agricultural production. All signs indicate that the Philippine Islands are faced with a great shortage of animal-protein foodstuffs.

Burma

The food situation in Burma during 1945-46 revolves mainly around the rice crop, this cereal being the principal food of the country. The importance of rice in the domestic economy of Burma is brought out by the fact that normally two-thirds of the country's crop area is devoted to rice production, and that rice is practically the only food that is exported. Prior to 1942 Burma was the world's largest rice exporter. Corn, millet, beans, peanuts, and other crops were grown only for domestic consumption. The Japanese invasion apparently affected rice production primarily, because it deprived Burma of its export outlets, while the domestic supply and demand for other crops experienced no appreciable change.

Indications are that of September 1, 1945, Burma had availabe for export, up to 1 billion pounds of milled rice from last year's crop. This compares with annual average exports of 6,500,000,000 pounds during the 5-year period 1936-40. Approximately 75 percent of the exports normally went to India, Ceylon, and British Malaya.

Estimates of this year's (1945-46) crop, or of probable exports, are not yet available. While some expansion in acreage was anticipated, as large parts of Burma were freed from the Japanese before planting time, the following factors will limit the harvest of the current crop and will prevent Burma's rice industry from returning to normal for some time:

1. State of unsettlement and confusion. Until the Japanese surrender there were still numbers of Japanese, either stragglers or organized units, in parts of Lower Burma; consequently, the peasants cultivated only the lands in the immediate neighborhood of their villages and avoided outlying fields the cultivation of which would force them to stay overnight in temporary huts erected in the fields. Wartime conditions led to disputes over ownership and occupancy of land, and the resulting fights and lawsuits have delayed cultivation. About one-fourth of the rice land of Lower Burma is owned by absentee Indian money lenders and landlords, most of whom fled to India during hostilities.

2. Effect of prolonged idleness of the land. Large areas have been out of cultivation for so long that they are overgrown with bush vegetation or grasses; so as much as two or three years may be required to bring them back into cultivation.

3. Shortage of work animals. An early assumption was that a shortage of work animals might be the severest limiting factor, for rinderpest and Japanese requisitioning are reported to have reduced the number of work animals by one-half. This did not prove true; instead many of the cattle-breeding districts have plenty of stock. Many of the rice-growing districts of Lower Burma, however, have a shortage of cattle. But this can be rectified as soon as the animals can be driven south from the cattle-breeding districts.

4. Lack of transport facilities. Railways have been destroyed, especially rolling stock and bridges, and the boats of the Irrawaddy Flotilla Company have been sunk; so it is difficult to ship stocks of rice from the rural districts of Lower Burma to Rangoon and other milling and export centers. Many rice growers likely have substantial quantities of rough rice, which cannot be transported now, and therefore do not plant as much rice as they would if they had been able to dispose of their accumulated stock of rice.

5. State of rice mills. Although a fair portion of the rice mills seem to be intact, many of them need repairs and fuel before they can be put back into operation.

All these factors will tend to keep the current rice crop far below the prewar level, despite the great demand in India, Ceylon, other Far Eastern countries, and in Europe. Agricultural experts of the Burma Civil Affairs Service do not expect an appreciable increase over the supply that is available for export from the 1944-45 crop.

Siam and French Indochina

Just as in the case of Burma, the 1945-46 food situation in Siam and French Indochina is largely a matter of the production and supply of rice, the principal item in the diet of the people. Prior to 1942, Siam and Indochina were, after Burma, the two most important of the world's rice-exporting countries. Siam exported slightly more than 3 billion pounds of rice annually during the 5-year period 1936-40, more than 75 percent of the exports going to nearby Asiatic markets, principally Singapore and Hongkong. The average prewar exports of Indochina were about the same in volume as those from Siam, but approximately 50 percent of the exports went to European markets and only 32 percent to Asiatic countries. The leading buyers were France, Hongkong, and Singapore.

Reports indicate that lack of export markets and shipping space during the war years have resulted in a decline in the rice acreage in both Siam and Indochina. The decline was apparently not so drastic as in Burma because of their advantage in geographical location with relation to Japan and to other countries of the so-called "Greater East Asia Co-Prosperity Sphere." While the wartime reduction of Burma's rice production amounted to 40 percent, that of Siam and Indochina has been estimated at only 25 percent. Such a decline would not endanger the food supply of the two countries, but it does seriously reduce the amount of rice that will be available for immediate export.

The surrender of the Japanese may have come too late to affect appreciably the outlook for the crop year 1945-46, because most of the planting had already been done when the end of hostilities was announced. At the moment no estimates are available with respect to the rice surplus in Siam and Indochina, but a reasonable assumption is that some stocks exist because a shortage of shipping space prevented the Japanese from drawing as heavily on the rice surplus as they would otherwise have done.

There is a great need for incentive goods and for transportation facilities to make the surpluses available to the deficit areas of the Far East.

British Malaya

Before the war British Malaya's agricultural economy was primarily concerned with rubber and only to a much lesser degree with food production for local consumption. It depended for nearly 70 percent of its rice requirements - its main food - upon Siam, Burma, and Indochina, importing some 1,546 million tons of rice annually during the years 1935-39.

The food requirements of Malaya probably have not decreased since 1942, since the population does not seem to have declined. On the contrary, requirements during the war increased, at least temporarly, by the amount needed by the Japanese forces.

As shortage of shipping space made it impossible to import rice in the accustomed quantities from Siam and Burma, the Japanese attempted to increase food production. They converted some rubber plantations to the production of upland rice, corn, cassava, sweetpotatoes, and other food crops. They also encouraged or forced Chinese and Indian laborers to raise their own food. Furthermore, they sponsored agricultural colonies for Malayan, Chinese, and Indian city and town people. Despite all their efforts they were not, however, able to make Malaya self-sufficient in foodstuffs and therefore had to import some rice from Siam and Burma.

The food deficit of Malaya is perhaps not so large as it was in prewar years because of the Japanese agricultural programs, but Malaya definitely belongs to those liberated countries of Asia which need, above all other foods, imports of rice or substitute starches.

Netherlands Indies

All signs indicate the need for food imports in the Netherlands Indies during 1945-46 if the requirements of the population in the urban centers and in the normal food-deficit areas of Sumatra, Borneo, and the Celebes are to be met. Normally, the Netherlands Indies is one of the world's large exporters of such foods as sugar, cassava, copra, and palm oil. These usually account for about 27 percent of the value of all agricultural exports. Rubber, tea, coffee, cinchona, and tobacco make up most of the balance. Just when Netherlands Indies exports of foods and other agricultural products will again make their appearance on world markets cannot be stated at this time. The main crops grown for domestic consumption are rice, corn, cassava, sweetpotatoes, peanuts, and soybeans.

Rice production constitutes the economic foundation of native agriculture, because rice is the most important food item. During the 1920's and 1930's the Netherlands Indies were not self-sufficient in

rice, imports during the 5-year period 1926-30 averaging about 1,300,000,000 pounds annually, mostly from Siam, Indochina, and Burma. As a result of governmental efforts to bring about a larger measure of self-sufficiency, the annual import requirements for rice were reduced to an average of 515,000,000 pounds for the 5-year period 1935-39. In 1940, the Netherlands Indies for the first time became entirely independent of rice imports.

A series of good harvests contributed to the success of the drive for increased production, but even then the balance between supply and requirements was always precarious. Furthermore, self-sufficiency in rice and other foodstuffs was not achieved in all parts of the Netherlands Indies; sections of Sumatra, Borneo, and Celebes depended upon imports from surplus-producing regions. This distribution of foodstuffs called for the maintenance of an efficient interisland communication system. The only serious food deficit for the Netherlands Indies as a whole was in dried and salted fish, of which over 100,000,000 pounds were imported annually.

While the Japanese occupation of the Netherlands Indies cut off the agricultural export industries from their markets, the Japanese were not able to make use of the total Netherlands Indies production. They concentrated their efforts on the expansion of food production to meet the greater requirements brought about by natural increase in population, together with the demands made by the Japanese military forces. In addition, they attempted to expand the production of cotton and other fibers as well as of castor-beans. Their agricultural programs seem to have failed. At least, the Japanese did not achieve the goals they had set. They were not able to maintain the food self-sufficiency of the islands, despite the conversion of some of the plantations in Java and in other parts of the Indies. Moreover, the lack of shipping space prevented shipment of food from surplus to deficit areas.

No data are available on this year's rice crop in Java, most of which was harvested from April to June, or on any of the other important food crops. But it may be assumed that food acreages in Java and Madura did not change greatly. On the other islands, however, some of the population moved from the more exposed places, where they were subject to Japanese pressure and exploitation, to remote areas. This was partly encouraged by leaflets dropped from Allied planes. Such population movements considerably affected food production in various areas.

Southern British Dominions

Australia

One of the severest droughts in Australian history was responsible for a sharp drop in the food production of that country during 1944-45. Only 53,000,000 bushels of wheat were produced, which was less than a third of the prewar average and only half as large as the crop of the preceding year. The drought has now been broken, and a wheat crop of 125 to 150,000,000 bushels is forecast for 1945-46. The 1944-45 rice crop, estimated at 39,000 tons of "paddy" rice, was less than half the size of the previous year's record crop and only 77 percent of the 1937-41 average.

Dairy and meat products were also affected by the drought, though not so severely as grain. Butter production declined by more than 10 percent and that of cheese by about 5 percent from the previous year. Pastures have improved since mid-1945, and some recovery in dairy production is expected in the coming year. However, supplies of dairy products this year will remain smaller than before the war.

Meat production for the calendar year 1945 is estimated at 1,000,000 tons compared with a production of 1,160,000 tons in 1944. Decreases from 1944 to 1945 are forecast as follows: 19 percent for mutton and lamb, 11 percent for beef and veal, and 4 percent for pork and pork products.

The drought has also seriously affected most of the fruit crops. The apple crop of 7,600,000 bushels is 40 percent below the crop of the previous year and is the smallest crop since 1930-31. Pear production is estimated at 2,130,000 bushels, or 10 percent less than the 1943-44 crop. The 1945 pack of canned fruit (apricots, peaches, and pears) totaled 2,080,000 cases of 24 No. 2½ cans and is 10 percent smaller than the 1944 pack but about equal to the 1943 pack. Most of this decline is accounted for by the apricot pack, which was down 58 percent from 1944. The current year's production of dried vine fruits (raisins and currants) is forecast at about 75,000 tons or approximately 35 percent less than production last year. Production of dried tree fruits (prunes, peaches, apricots, nectarines, and pears) this year is estimated at 3,600 tons, or roughly 40 percent less than last year.

Australian sugar-producing areas were not affected by the drought, and sugar production has made a substantial recovery from the 1943-44 level. The 1944-45 output is estimated to be over 720,000 tons, compared with about 560,000 tons the preceding year. Production of sugar this year is expected to exceed that of 1944-45.

During the war, Australia rationed meats, dairy products, and sugar in order to supply greater quantities to the United Kingdom and the armed services in the Pacific area. Even with the end of the war in the Pacific, these demands will remain high this year. At the same time, relief needs for the Far East would require less shipping if supplied from Australia. With these heavy demands upon Australia's

normal surplus food-producing capacity, it is unfortunate that drought should have reduced that country's food output for 1944-45 by more than 30 percent. Rains which fell in June 1945, however, ended the drought, and the 1945-46 production of food crops may be at or above prewar averages. Dairy production has been gradually declining during the war because of labor shortages. The belief is that at least 2 years will be required to reach normal production levels, even though pastures and feed supplies improve more rapidly. The recovery of meat production will also be slower than the recovery of crops.

New Zealand

The downward trend which New Zealand food production took in 1942-43 and 1943-44 was reversed in 1944-45, and further improvement is probable in 1945-46. The most significant improvement in the past year was in the production of animal products. Butter production in 1944-45, estimated at 177,000 tons, was up 12 percent over the previous year; cheese, estimated at 116,000 tons, was up almost 9 percent, and meat production of 582,000 tons was about 4 percent above 1943-44.

On the other hand, grain production in 1944-45 was disappointing. Total wheat production of about 6,500,000 bushels, while about equal to prewar production, was still considerably below requirements. Because of the Australian drought, New Zealand is importing wheat from Canada.

The production of potatoes, like that of grain, was adversely affected by wet weather and floods during the 1944-45 season. The output of 3,170,000 bushels was a little above that of prewar years but considerably below that of 1942-43 and 1943-44. Onion production was at a record-breaking level during the past season; but pea production, though still 50 percent above prewar years, declined from levels maintained in previous war years.

Although New Zealand is a large exporter of meat and dairy products, both these groups of food are rationed in order to enable New Zealand to supply the maximum quantities possible to meet requirements of the armed forces in the Pacific and of the United Kingdom. The weekly ration of meat is estimated at 2 pounds, the butter ration is fixed at 6 ounces a week, and cheese is allocated at the wholesale level. Demands of the various armed forces on the New Zealand food supply will likely diminish with the end of hostilities with Japan. However, the needs of the United Kingdom and the requirements for relief in war-devastated areas will take all the New Zealand food that can be spared for some time to come.

The New Zealand Department of Agriculture has approved a food-production program for 1945-46 that calls for increases in the production of dairy products, meat, and grain. Except in the case of grain, the outlook for meeting the objectives set up in this program is favorable. Labor and fertilizer shortages have been the limiting factors in New Zealand food production. The end of the war should result in rapid

improvement in the supply of manpower and of fertilizer for New Zealand farms. Unfavorable weather conditions have affected the seeding of grains, and the 1945-46 wheat crop is expected to show little improvement over the 1944-45 crop.

Union of South Africa

The food situation in the Union of South Africa during 1945-46 is difficult to estimate, because the season has just begun. Thus far, however, climatic conditions have not been favorable. Sugar production for the year has been estimated at 582,000 tons compared with 614,000 tons last year.

At the end of hostilities, production of potatoes, sugarcane, fruits, and of livestock and their products were all above prewar levels. Last year, however, drought reduced the wheat and corn crops below their prewar levels by 7 and 18 percent, respectively. The reduction in the output of corn was especially significant, because it is the chief staple in the diet of the large native population.

South Africa's relatively high self-sufficiency in agricultural products is such that imports and exports of food products are comparatively small. As a whole, the country's food supplies were fairly adequate during the war. In 1944-45, as compared with the years immediately preceding the war, the potato output was greater by 23 percent and that of sugarcane, by 33 percent. Production of both fresh and dried fruit was only slightly above the prewar level. The wartime output of meat increased by 29 percent and that of butter and cheese, by approximately 14 percent.

WORLD SUPPLIES OF MAJOR FOOD PRODUCTS

Grains and Foodstuffs

The arrival of V-J Day has found a world in great need of grains and feedstuffs--the bread grains, wheat and rye; the feed grains, notably corn and barley; and the feedstuffs, particularly the high protein feeds, oilcake and meal. Many difficult problems exist in meeting the requirements of grain-deficient countries. These include the limited supplies of some grains, the distant location of supplies for others, the transportation and distribution difficulties in most war-affected areas, and the magnitude and form of the requirements. Because of the importance of grains and feedstuffs in the world food picture for 1945-46, the supply and general-requirement position is considered separately for the bread grains, feed grains, and feedstuffs.

Bread grains

While sizable stocks of wheat are on hand, and wheat and flour promise to be the major food items for relief in the war-torn areas of Europe and the Orient, supplies do not appear adequate to meet all demands. Bread or flour rationing will need to be continued in most liberated areas if bread is to be generally and regularly available. Reduced domestic crops of bread grains and sharply reduced commercialization of domestic supplies is now reported for much of Europe. The European wheat harvest for 1945 is now estimated to be the smallest since the early 1920's - reduced seedings, drought, shortages of fertilizer and the impact of the war have all been contributing factors. Sharp reductions are reported for all important producing countries--France, Spain, Italy, Germany, the Balkans, particularly Hungary and Rumania, Poland, and also the United Kingdom. Most other countries, except Scandinavia, show declines. Similarly, for rye, the large producing areas in central and eastern Europe have harvested small crops. In addition, a sizable percentage of the European wheat and rye harvests are in areas that are under the control of the U.S.S.R. The areas annexed, including Bessarabia, northern Bucovina, Ruthenia, eastern Poland, the Baltic States, and parts of Finland, normally produced around 80,000,000 bushels of wheat and 140,000,000 bushels of rye before the war; whereas the Soviet-occupied areas in the Balkans, Poland, and eastern Germany accounted for an additional 475,000,000 bushels of wheat and around 425,000,000 bushels of rye. These combined areas produced around 37 percent of the average continental total output of wheat and 63 percent of rye.

The reduced grain harvests throughout the eastern surplus areas, together with the requisitioning and movement of supplies to the east rather than to meet needs in the west, as prior to the war, are adversely affecting the European grain and food situation this year. Land reform, population shifts, and the requisitioning of livestock, especially draft power, that have been extensively and suddenly carried out have sharply curtailed eastern-and central-European production. For example, preliminary reports from Hungary, which was an important surplus area before and during the war, indicate a wheat crop of only

around 27,000,000 bushels as compared to a prewar average of 91,000,000 bushels. Wheat imports into that country are reported to be necessary. Other former cereal-surplus-producing areas that are now receiving supplies from overseas via UNRRA include Yugoslavia and Poland. In the normal surplus-grain-producing areas of eastern Germany many sections report little or no harvest because of unsettled conditions.

With little or no bread-grain surpluses available in Europe, the impact of the deficits in other areas has become intensified. Instead of one or two countries or regions with a yearly requirement of a million tons of bread grains, as prior to the war, there are nine in prospect this season in Europe, including North Africa, and four of these have reported deficits of 2,000,000 tons or more. French North Africa normally has exported wheat; this season that area will be a major wheat importer. Other large importers include India, formerly a wheat-exporting country; Brazil; and, with the ending of the Pacific war, China is expected to be added to the list again.

About 75 to 80 percent of the currently estimated exportable total supply for this year, placed at 750,000,000 or 800,000,000 bushels, including an allowance for some quantities from the Southern Hemisphere crops to be harvested in November-December 1945, is located in North America. Furthermore, a considerable part of the United States surplus is located in the Pacific Northwest, as is also some of the Canadian surplus. The close of navigation on the Great Lakes will limit considerably exports from Canada and the United States spring-wheat region during the winter months, December 1945--April 1946. Southern Hemisphere supplies were greatly reduced by drought in 1944, and Australia is out of the export picture until the new harvest. While Argentina has some fair-sized carry-over stocks on hand, unsatisfactory internal-transportation conditions, resulting from lack of fuel, are limiting export possibilities from that country.

Supplies of rye for export are greatly limited and fall far short of meeting the European deficit this season. Domestic requirements for the United States exceed the 1945 supply on hand so that exports must of necessity be of restricted volume. Canada is harvesting a very small crop, and carry-over stocks are at a low level. Argentina is the only other likely source for any significant quantities of rye for export, and it is still too early to estimate the surplus position for 1946 in that country. The 1944 harvest was small, and unsold or unshipped rye is limited.

Feed Grains

There are no significant exportable supplies of feed grains, except possibly oats, in the world at the present time. On the other hand, requirements, especially in Europe, are very large. The shortage of feed grains promises to delay until at least 1946 any active efforts aimed at rehabilitation of livestock in Europe, and in many sections it may endanger the maintenance of existing livestock numbers. The

shortage of meats and fats and oils has further intensified the demand for feed-grain imports in order to increase local supplies of these food products. There are also indications that the difficult feed-grain situation is reflecting itself in larger requirements for bread grains in view of the holding back on farms on some wheat and rye for feeding purposes.

The smaller feed-grain supplies this year result from reduced harvests in Argentina and Canada, the two principal surplus-producing countries. In addition, the lack of fuel in Argentina has forced the burning of most old-crop corn which it had been hoped would be available to meet urgent feed needs when the shipping position improved. The United States corn, barley, and sorghum crops will be largely required for current-season domestic needs and offer little hope at present for feed exports. Some quantities of corn for food purposes may move, but the indicated requests for food use alone are of such volume that, if they are to be met, exports, if any, for feed will probably be small. A record crop of oats has been harvested in the United States and may permit some exports though oats are the least needed of any feed grain. New crops of barley and oats will be harvested in Argentina in December-January and may provide some quantities for export in 1946; also, should a good corn crop be harvested next spring, an active volume of export might be made in the 1946-47 season.

Meanwhile Europe is harvesting the smallest feed-grain crop of the war period, and little or no intercountry movement of supplies, as formerly, is to be expected. While livestock numbers, especially hogs and poultry, were largely adjusted to domestic or continental supplies during the war, it now appears that Europe will have to get along on less feed grain this year than in any war year, and some further liquidation of livestock in local areas is not improbable. The areas with the largest feed-grain requirements are the United Kingdom, France, Netherlands, Belgium, and Denmark. In central and eastern Europe, extensive requisitions, or liquidation, of livestock will be an offsetting factor to the smaller harvests.

Other areas with feed-grain-deficit problems include North Africa and Australia, both badly hit by unusually severe droughts in 1945. The corn crops in Cuba, Mexico, and Central American countries are reduced, and imports are needed for food, because corn is a staple item in the diet. The ending of the war in the Pacific should permit corn exports again from Indochina and the Netherlands Indies when surpluses are available. These areas, however, are not expected to have any significant quantities for export during the period of most urgent need.

Protein meals and feedstuffs

The international supply situation for protein meals is acute, and little improvement is to be expected until at least 1946. Demand is very active not only from Europe but in the United States as well; surpluses now available and in prospect until the new oilseed crops are harvested in the Southern Hemisphere represented only a small part of the requirements as presented. Protein meals are particularly desired by the United States, United Kingdom, Denmark, Netherlands, Belgium, France, Switzerland, and Sweden.

Argentina is the principal source available, but supplies have been greatly reduced in that country by the small 1944 flaxseed and cotton crops and the extensive use of vegetable cake and meal for fuel. The unavailability of adequate fuel supplies during the war period, and particularly the past two seasons, has forced the burning of large quantities of agricultural surpluses, notably linseed, cottonseed, and sunflower cake and meal, as well as corn and wheat, in factories and in processing and public-utility plants. The short cotton crop in Brazil has stopped exports of cottonseed cake and meal in order that local needs of the country can be satisfied.

The impact of scarcity of protein meals will be felt in the availability of milk and dairy products. Production per cow has been sharply reduced during the war period as a result of limited supplies of protein feeds. The small supplies now available will delay and limit any general improvement in milk production, particularly in the commercial dairies around the larger cities.

For millfeeds the supply position in some European countries, notably the United Kingdom and western Europe, appears slightly improved as a result of reductions in extraction rates; in others, especially those of central Europe, Italy, and Spain, it promises to be less favorable as a result of smaller bread-grain supplies for milling. The active demand for millfeeds in all countries is reflected in requests for imports of wheat, rather than of flour, wherever milling facilities are available in order that the offals may be secured for feed.

Rice

Preliminary prospects indicate that the 1945-46 world rice crop may show little change from last year's relatively small production and may again be about 90 percent of the prewar, estimated at 7,400 million bushels of rough rice. The output from normal surplus countries, however, may be slightly larger, than in 1944-45 both in the Orient and the Western Hemisphere, so that some increase may be expected in the quantities of rice available for export to deficit countries. Exportable supplies in the surplus-producing areas will be much below prewar, volume, however, because of the sharp decline in production in southeastern Asia during the Japanese occupation. The 1945 European crop has been sharply reduced to about 60 percent of the prewar average, and it is considerably smaller than the 1944 crop. Production in Africa is expected to be about 10 percent above the prewar average and about the same as last year.

In contrast to the possibility of some increases, in the surplus producing areas this year, production may be slightly smaller in the major rice growing and consuming countries. Prospects during the summer indicated about an average crop in China in 1945 in comparison with the large crop of last year. The harvest in India may be smaller than last year's production because of deficit rainfall in some of the principal rice-producing areas.

The liberation of Burma may have taken place in time to allow for some increase in rice acreage, but the acreage planted is not likely to approach that of prewar years in size. The acreage in the Philippines is about 60 percent of prewar years, and the delay in planting, due to lack of rainfall, may adversely effect production. The liberation of British Malaya, Siam, and French Indochina may have come too late to allow for an increase in acreage this year. In the Netherlands Indies, the principal planting season is from November to February, and some increase in the acreage planted for harvest in 1946 may be possible.

In the Western Hemisphere indications point to a record crop in North America as a result of the large crop in the United States and favorable prospects in Central America, although crops in the Caribbean suffered from drought. In South America, where most of the acreage is planted in September or later, the Brazilian crop may not be so large as the outstanding harvest of last year; and an increased acreage is expected in Ecuador and British Guiana.

Shortages of fertilizers and labor in Italy, with a consequent decline in acreage and in yield per acre, together with droughts in Spain and Portugal, have been the chief factors responsible for reducing this year's European rice production to less than 60 percent of the prewar average. Reduced production and shortages of other grains have eliminated the exportable supplies usually available in Spain and Italy. In Africa a nearly record rice acreage was planted in Egypt, and production in Madagascar is slightly larger than 1944-45, but droughts in some areas have reduced crops. Australian rice production is expected to be larger than last year's short crop, which was reduced by the drought.

Sugar

World production of sugar in 1945-46 probably will total close to 30,000,000 short tons (raw value), compared with about 29,500,000 in 1944-45 and the average output of 34,400,000 in 1935-39. The slight increase in prospective production, however, probably will not mean any increased quantities of sugar available to consumers in the important consuming countries, and especially in those depending largely upon imports, because these countries depleted reserve stocks in 1944-45 to about minimum operating levels. As a consequence, world consumption of sugar in 1945-46 will be dependent entirely on prospective output.

Production in Europe probably will be somewhat lower than in the previous season with decreases in central and southeastern Europe more than offsetting some increase in the Union of Soviet Socialist Republics and the United Kingdom. The Continent as a whole probably will require imports totaling at least 750,000 tons in order to maintain the current rationed consumption rate. In many of the Western-European areas the consumption rate is at about 55 percent of the prewar level. In addition to the continental imports, the United Kingdom probably will require imports, totaling close to 1,500,000 tons if the current rationed consumption level there is to be maintained. In 1944-45 United Kingdom were substantially smaller than those in prospect, because it was possible to draw upon reserve stocks for consumption purposes. This will not be possible to any great extent in 1945-46.

In the Far East the situation is not clear because no information has yet become available regarding the production prospect in Java, which normally supplied close to 1,500,000 tons of sugar to the world market (largely to Southern Asia and the Middle East), and in Formosa, which normally supplied about 1,000,000 tons of sugar to the United States, probably will produce less than 25,000 tons in 1945-46 and will require imports to meet local consumption requirements. In India production probably will be sufficient for local requirements. A large part of the output there is a low-grade sugar called "gur," which is used almost entirely for local consumption.

Sugar production in Australia and the Fiji Islands in 1943-44 reached a recent low of 650,000 tons but increased sharply in 1944-45 and is expected to expand still further in 1945-46. This means that the exportable surplus, which usually is shipped to New Zealand, Western Canada, and the United Kingdom, will be larger than in the last several years.

Africa, a normal net exporter of about 300,000 tons of sugar annually, probably will produce slightly less sugar in 1945-46 than in previous years largely because of damage by hurricanes in Mauritius and Re-union and early drought in the Union of South Africa. The net exportable surplus probably will be only slightly smaller than in recent years, however, since a reserve stock in Re-union becomes available for shipment during the coming season. Nevertheless, most of the importing areas in Africa probably will have to continue on a strictly rationed level of consumption equivalent to about 50 percent of the prewar average.

South and Central America and Mexico, together, probably will produce slightly more sugar in 1945-46 than in recent years, but some individual countries will require imports to balance consumption requirements. Demand for sugar in these areas has increased sharply during the war years, a result of the rapidly expanding purchasing power of consumers. This group of countries, taken as a whole, was a sizable net exporter of sugar in prewar years, but now trade is in approximate balance, if British Guiana is excluded. This has occurred despite the fact that production has increased about 20 percent over the prewar average.

In North America, including the Caribbean and Hawaii Islands, production of sugar in 1945-46 is expected to be 10 or 15 percent larger than in 1944-45 and the prewar years. However, the supply of sugar probably will be no larger, since in 1944-45 there were reserve stocks available, whereas in 1945-46 there will be no such reserves, and the total supply will have to come from current production. Normally, this region was a moderate net exporter of sugar, the imports into the United States from the Philippines partially offsetting exports from the Caribbean to countries outside the region. During the recent war years, imports from the Philippines have been cut off, and net exports from the region as a whole necessarily have been increased in order to maintain a balanced distribution of sugar among the Allied Countries. As a consequence, rationing of sugar became necessary in the importing countries and probably will have to be continued in 1945-46 at about the 1944-45 level. In the exporting areas, consumption has increased markedly during the war period.

Fats and Oils

The world supply of fats and oils, both edible and inedible, will continue short for 1945-46. In most cases supplies will only be sufficient to meet minimum requirements. Total international trade in fats and oils, exclusive of butter during 1945-46, is expected to reach 6.5 billion pounds compared with approximately 5.5 billion pounds in 1944-45, and the prewar level of 9.0 billion pounds. In spite of the liberation of the surplus producing areas of the Far East (formerly contributing about 35 percent of the world trade) the amounts of fats and oils available for 1945-46 from these areas are expected to be disappointingly low. In view of reduced production and smaller world trade in fats and oils, equitable distribution of available supplies is a complex task.

While the Western Hemisphere has greatly increased vegetable oil production during World War II, notably soybeans in the United States, and sunflower seed in Argentina, the expanded output has not been sufficiently large to compensate for the loss of supplies formerly available from the Pacific and Far East. Under Axis domination, Central European vegetable oilseed production, particularly rapeseed, increased materially during the war. World cottonseed oil production has decreased about 13 percent from prewar levels, principally as a result of the reduction in cotton crops in the United States, Egypt and India. Peanut production in western Africa has declined in recent years, due to drought conditions, a shortage of incentive goods, and inability to export.

Lard and tallow production in the European countries for 1945-46, will be substantially below the prewar level. Lard production in the Western Hemisphere will be about the same level as in 1944-45, which is about the prewar output, but materially below the record production in 1943-44. Whale oil, which was widely used in compound and margarine in Europe before the war, has been a wartime casualty, and during the coming year production is only expected to reach 25 to 30 percent of the normal 510,000 ton output.

The liberation of Europe in the spring of 1945 has brought about huge requirements for relief. Total output of fats and oils (including butter) is well below the average for the middle thirties, when continental Europe imported a large proportion of its supplies. Throughout the war period, fats and oils were in shorter supply than any major food item.

In the Western Hemisphere and other countries not invaded by the enemy, increased purchasing power, because of wartime prosperity, has tended to increase consumer demand. This demand in some countries has been offset in part by rationing systems and restricted supplies. During the war years, however, certain of the South American surplus producing countries have increased slightly per capita consumption of fats and oils.

The greatest uncertainty as to available supplies for 1945-46 are the recently liberated areas of the Far East. Experience to date with copra in the Philippine Islands, indicates that the recovery process will be slow and that a number of months pass before full production is again reached. While some shipments of copra from this area are expected in 1945, each succeeding month of 1946 should increase the movement of this commodity. The lack of trade goods, disrupted transportation, and the destruction of processing plants and affiliated problems, caused by war, are deterring factors. It is believed that a similar situation will prevail in reestablishing the copra and palm oil industries of Malaya and the Netherlands East Indies. Manchurian soybean production is probably at a reduced level, and the disposition of the surplus crop among the Allies is not clear.

Meat

World meat production in 1945-46 is expected to total about the same as in 1944-45, when it was considerably short of prewar levels.

A moderate upturn is expected in United States production, with increased 1945 fall farrowings of pigs and heavier marketings of cattle; but production in Canada will continue downward. In Europe, output will remain small, owing to severe reductions in livestock numbers during the war years, and a shortage of feedstuffs. Detailed information is lacking, however, on the current situation in Europe as regards rates of slaughter and breeding plans.

Production in the principal South American exporting countries - Argentina, Uruguay, and Paraguay - and in Australia and New Zealand, is expected to be about the same this year as last, or possibly slightly larger. The South American output during the first half of 1945 was considerably curtailed by drought, which reduced the rate of gain among cattle and cut down supplies of feed for pig fattening. In Argentina, extended labor strikes in the frigorificos also affected the volume of slaughter. Australia suffered a very severe drought last year, and there has been some liquidation of livestock, marked in the case of sheep and limited as to cattle. In consequence, Australian meat output this

year may be smaller. New Zealand has had normal weather conditions, and its meat export volume should increase slightly. A Government subsidy is being paid for the production of hog-feed crops, and sheep numbers are understood to have increased.

Thus, world meat production will not, by a considerable margin, come up to consumption requirements as currently estimated. A large deficit is expected to persist throughout the year, although its size will depend upon world economic conditions. Prior to V-J Day, the shortage of canned meat was especially serious.

Since V-J Day, it has begun to appear that the deficit, particularly of canned meat, is likely to become less marked during the course of the next 12 months. In the first place, the cessation of hostilities resulted in an almost immediate and substantial reduction in military demands, which had included a large proportion of canned meat. Reductions since then have gone far in alleviating the shortage in this product. Demobilization will, of course, be accompanied by some increase in civilian requirements, but there will probably be a net annual reduction of from 100 to 150 pounds for each discharged soldier.

Meanwhile, there are indications that France, Belgium, Netherlands, and Norway are now more interested in importing meat in the carcass form than was the case a few months previously. As of September 1, 1945, the canned-meat supply problem no longer appeared to be serious, and the deficit was coming to be expressed more nearly in terms of fresh or frozen and cured forms. The liberation of the Far East imposed additional burdens upon the exporting countries of the world, but the demand there for meat is considerably less than in Europe.

In the light of such alterations in the outlook since V-J Day, it is difficult to forecast with any certainty what world meat-import requirements actually will be this year. Much depends upon financial and trade arrangements, and policies still developing between producing and consuming countries. The extent of the demand for United States meat is in particular doubt, pending the determination of arrangements to follow the Lend-Lease Program. Exportable supplies in Canada, Australia, New Zealand, and Argentina, however, are assured of outlets at least in the United Kingdom through long-term contracts which have been negotiated with the British Ministry of Food during the past year.

Under favorable financial and trade circumstances, the continental European countries for several years conceivably might easily import from non-European sources from 500,000,000 to 750,000,000 pounds of meat annually, as compared with less than 300,000,000 in 1938. This does not appear to be an unreasonable estimate when account is taken of the extent to which the volume of current livestock slaughter in Europe is below the prewar rate. On the basis of data at hand, current meat production in Europe, including the United Kingdom, apparently is below prewar levels by something like 6 or 8 billion pounds, or roughly from a third to a fourth. Under very favorable trade circumstances,

total meat exports to continental Europe might exceed one billion pounds for a year or two; but it is doubtful if the producing countries are prepared fully to cover the production drop since prewar days. The increase in meat output for export in the Southern Hemisphere and North America during the war, offset only about two-thirds of the decline in Europe.

In any case, some imports will be needed until extensive feed imports can be resumed, and existing breeding herds can be expanded.

In the event that liberated importing countries do not take all the meat which may become available for export to them as a result of military reductions, the remainder can likely be absorbed readily enough this year by the civilian consumers of the producing countries. In the United States, barring a serious employment slump, the demand for meat might rise to a rate of 160 pounds per capita per year, or as much as 35 pounds more than is available at present. Such an increase in terms of the national population of 140 millions would exceed the reduction in military requirements expected this year. The civilian population of Australia, New Zealand, and Canada, also have been on restricted meat allowances during the war, and doubtless will absorb any reductions in supplies found not required for export.

The European countries in 1945-46 will begin emphasizing the rehabilitation of their livestock industry, and in the case of exporting countries, such as Denmark, will be striving to regain their former international trade postion, Norway, for example, has recently introduced a subsidy program for meat-animal producers. In Belgium, attempts are being made to limit current slaughterings so as to build up animal numbers and increase weights for later marketings. In the United Kingdom, where pig numbers fell by about 50 percent during the war, the tendency henceforth may be to emphasize dairying rather more than meat production, but a definite policy has not yet been outlined.

Fish

Fish, like meat, is now in very strong demand over the world and is likely to remain so for at least another year. The gap between the stated import requirements of the principal consuming countries and the expected export availabilities in 1945-46 from the principal producing countries is substantial, being more than 100,000,000 pounds for dry salted fish and more than 750,000,000 pounds for canned fish. The world's fisheries during the past year, and more particularly within the past 4 months, have shown some further recovery from earlier wartime dislocations; but an unusually large demand for relief purposes has arisen with each successive liberation of occupied territory.

The principal exporting countries expect to put into world trade this year about 175,000,000 pounds of dry salted fish (dry basis) or only about 40 percent of the prewar world total. The production of pickled or cured herring and other species (except cod) had been expected more nearly to approach the prewar annual world average of around 550,000,000 pounds, but current reports reveal an extremely unsuccessful season in Iceland, a principal producer. In other areas, possible limiting factors will be the continuing scarcity of barrels and other containers, labor, and fishing equipment.

The world canned-fish output this year, including production in ex-enemy countries, may range between 80 and 90 percent of prewar levels; but the supplies forthcoming from the principal exporters, i.e., the United States, Canada, Norway, Spain, and Portugal, may not cover much more than about 75 percent of the requirements of the principal countries that have indicated a need for imports.

The present gap between supplies and requirements is due in part to major wartime disruptions of production and distribution which have not yet been overcome, but it is due to a greater degree to the inability of importing liberated areas to obtain desired quantities of other protein foods. Several hundred million pounds of canned fish, for example, are needed by certain countries of Europe which normally import only negligible quantities.

Fish production in the Ruropean area began to decline immediately after the opening of hostilities in 1939, when strict limitations were put upon fishing vessels by naval operations, heavy mining of waters, and the risk of enemy attack. Eventually, a very large percentage of the fishing fleets were requisitioned for naval duties.

After 1941, fishing fleets in the United States also were handicapped by widespread requisitioning of vessels, zoning of waters, and the migration of labor to other occupations. In Newfoundland, thousands of men were drawn from fishing to aid with the construction of military bases, and many boats were shifted to freighting services.

In Iceland, production was increased in the war period, but the catches were diverted almost exclusively to the United Kingdom in fresh, chilled, or frozen form. In normal times the Iceland was the world's third largest producer of salted fish, but after 1940 it became only a

minor exporter.

In the late 1930's Japan was exporting more than 150,000,000 pounds of canned fish annually and about 45,000,000 pounds of cured fish. The opening of hostilities in the Far East abruptly curtailed the extensive fishing and canning operations of Japan.

Efforts were made during the war to stimulate production increases in Latin America. Some progress was achieved in Peru, Mexico, and Venezuela, but the output volume, mostly in the form of canned or salted bonito and tuna, has not exceeded 20,000,000 pounds per year for export abroad. The productive capacity of the Southern Hemisphere waters remains largely undeveloped and still only vaguely known. Fishing grounds so far are concentrated in the temperate and subpolar waters, especially in the Northern Hemisphere, where 90 percent of the output is obtained.

In consequence of the growing scarcity of fish, particularly in canned and dry salted forms, it became necessary in 1943 to agree to international allocations through the agency of the Combined Food Board to ensure equitable distribution. The dry salted codfish allocation schedule covered the production of Newfoundland, Canada, Iceland, Greenland, and the French islands of St. Pierre and Miquelon. The principal recipients were the traditional markets of the West Indies, including United States possessions, the United States, Spain, Portugal, the United Kingdom, and certain Latin American countries. In 1944, however, Italy, Greece, and other Mediterranean areas were also included for relief purposes, and in 1945 limited supplies were also directed to northwest Europe.

The countries which have been the principal importers of canned fish are, by a wide margin, the United States and the United Kingdom. During the war, however, the United States sharply curtailed its imports and expanded exports both to its military services abroad and under the Lend-Lease Program. Civilian supplies of canned fish in the United States during the war have been only about one-half of normal. Supplies in the United Kingdom have been about four-fifths of normal, but fish served in part to offset the decline in meat imports.

Canned fish was among the items carried in substantial volume in United Kingdom stocks during the war. These stocks at one time exceeded 180,000,000 pounds, but have been gradually reduced by home consumption, as shipments from overseas sources were shared with other claimants or turned over to relief authorities for use in continental Europe.

The principal sources and exportable supplies of canned fish this year are now estimated as follows: United States, 212,000,000 pounds; Canada, 127,000,000; Spain and Portugal, 70,000,000, exclusive of anchovies; Union of South Africa, 4.500,000; South American countries, 15,000,000; Norway, 38.500,000; Angola and other African areas, 8,000,000. The assumption is that the production of the French North African territories will be available to metropolitan France.

It is anticipated that the foregoing supplies will be imported principally by Belgium, Netherlands, Switzerland, the United Kingdom and other British Commonwealth areas, certain Latin Amerian countries, southern and eastern European countries, and various western Pacific or Asiatic areas. Considerable quantities of fish in various forms are known to be produced in the Far East; but, with the exception of the Japanese and the U.S.S.R. output, they have not entered substantially into commerce with the rest of the world. The Japanese fishery, of course, has not produced at its prewar level for several years and an early recovery is not expected.

World fish production in the next year may be expected to make considerable progress in returning toward normal levels. Some progress has already been noted in Europe. Norway, one of the principal producers of Europe, expects to put at least 38,500,000 pounds of canned fish on the market by mid-1946 and now is understood to have immediately available about 90,000,000 pounds of brined herring and other fish. Doubt exists, however, as to whether the total Norwegian fish production in 1945, including supplies sold fresh, will be more than about one-fourth to 75 percent of the 1939 output. For one reason or another, there is delay in the return of former fishery employees. Fuel oil and much vital equipment, such as nets and marine engines, remain scarce.

On the other hand, fish have recently been landed in the Netherlands at an encouraging rate. This fact is one of the bright spots in the food picture there. In early August, production was reported to be about 400 to 500 tons per month and was expected by late fall possibly to be increased tenfold. Fishing grounds in the North Sea off England are now being reopened, and they are abound with fish. Landings of white fish in June were 28 percent and of herrings 60 percent larger than in June of last year. However, labor shortages have so far handicapped every stage of the industry, even in retail-shop distribution, as the tonnages of landings have increased.

The rate at which the world fishery industry recovers depends very largely upon the rate at which adequate labor, boats, fishing equipment, and fuel oil can again be put at its disposal. Demand for catches in the various fresh, canned, and cured forms is at a high level and is likely to remain so at least through 1946.

Milk And Dairy Products

A substantial gap appears between the world output of milk and dairy products and essential world consumer requirements this year. While total world production in 1945 may be higher than in 1944, requirements also are higher as a result of the liberation of Europe and the Far East. Little improvement can be expected in total production in 1946, yet requirements will remain large.

Fresh milk and canned and dried milk are in especially strong demand, despite a continuing upward trend in output during the first half of 1945. Protein and calcium deficiencies in many liberated areas give

rise to large requirements of these products.

Meantime, cheese production in the first half of 1945 showed a further increase of about 13 percent over 1944, and supplies will be more plentiful this fall and winter. But the manufacture of butter, which in 1944 was about one-fifth below the prewar output, continued to decline, owing in part to increased utilization of milk in other forms. Stocks of all dairy items are low, and there is a general shortage of competing food.

In Europe the production of milk and the manufacture of dairy products are below requirements in all countries, except Denmark. For continental Europe (except U.S.S.R.) milk production per cow is only about 85 percent of 1934-38 levels, and a decline of at least 12 percent in dairy-cow numbers had occurred by the beginning of 1945. Further declines in cow numbers have no doubt occurred since then, particularly in central and eastern Europe.

In comparison with the prewar levels, milk production is high in the United States, Canada, and the United Kingdom. Notwithstanding the sizable increase in output of this group, there has been a net decline for the world.

A difficult season for output of dairy products has just been experienced in Australia; and even though pasture conditions have improved, the effects of the recent drought will carry over into the current season. New Zealand, on the other hand, has just closed a good season, and prospects continue bright for this year.

Upward of a billion pounds less butter will be available for consumption this year than was produced in prewar years. As demands for other dairy products taper off, butter production is expected to increase, but the gain will not be rapid.

Rather high levels of cheese production prevail in the United States and British Dominions, and quantities are fairly ample for most essential requirements. The general shortage of all high-protein foods, however, prevents the development of a surplus of this commodity.

Despite a production of condensed and evaporated milk in the United States and Canada that is nearly double prewar levels, plus an expanded output in Australia and New Zealand, all supplies are required to fill present demands. However, after meeting the heavy initial requirements in liberated areas of Europe and the Far East in the remainder of 1945 and early 1946, output may quickly overtake effective demand.

Dried-milk production during 1945 in the five principal producing countries - United States, United Kingdom, Canada, Australia, and New Zealand - will be about 20 percent above the 1944 output. Production in these five countries in 1944 reached 931,000,000 pounds, compared to an average output of 295,000,000 pounds in the 1934-38 period.

By mid-1946, the import requirements of liberated areas of Europe and the Far East may have begun to diminish and a continuation of dried-milkproduction at present expanded levels doubtless would then be more than adequate to cover all effective demand.

Eggs

Eggs and egg products, which were in good supply in 1944, especially in the United States and Canada, have been short of demand during much of 1945. Recent reductions in military requirements due to the ending of the war are narrowing the gap between requirements and supply.

The approximately 6 percent decrease in the production of the United States and the increase in world requirements for all protein foods have reversed the picture from that of a year ago. The demand for eggs as a substitute for meat has greatly increased the rate of consumption in the United States. This demand, together with larger overseas requirements incident to the ending of hostilities in Europe, has absorbed available supplies.

While prospects are favorable for a higher level of output in the United States this fall and winter, effective demand is expected to keep supplies from piling up. Import requirements of European countries, together with the requirements for nearby areas, such as Cuba and Mexico, will impinge upon United States supplies. Supplies of dried and liquid eggs cannot be expected from China for at least 2 years, if then, but essential United Kingdom and European requirements can be met by the United States. There is a definite limitation, however, of the extent to which dried eggs can be used over the next few months as a substitute for other protein foods.

The United Kingdom, which historically has been the largest importer of eggs, will continue to have large import requirements. Egg production in that country is about two-thirds as great as in prewar years, when domestic production supplied only about 60 percent of the eggs consumed. The bulk of prewar imports of 7,600,000 cases came from Ireland, Denmark, Netherlands, and Poland. During the war shell eggs from these sources were replaced largely by dried eggs from the United States and Canada. Canada is supplying the United Kingdom, in shell and dried form, with the equivalent of 3,300,000 cases a year. An additional quantity of about 900,000 cases will move from Argentina to the United Kingdom during this fall and winter.

Egg production in all countries of Europe, except Denmark, is short of needs. Poultry numbers dropped sharply during the war as imports of grains were cut off and as domestic grain supplies were directed to human consumption. As a result, eggs are in very short supply in Continental Europe as compared with prewar net exports of about 3,500,000 cases. Exports from Denmark during the current year may total 160,000 cases, or only about 5 percent of annual prewar exports. These exports from Denmark appear small when compared to the needs elsewhere in Western Europe.

In the Netherlands officially reported poultry numbers are only 10 percent of the prewar average, and all the eggs produced are required for hospitals and for the sick. Egg production in Norway is now estimated at one-third and in Finland at about one-fifth the prewar figure. The decline in egg production in France has been approximately 35 percent. Heavy liquidation of poultry flocks in central Europe is still in progress.

While European poultry flocks can be quickly rebuilt, the fact remains that their contribution to the food supply will be small during the next year. Lack of grains and other feeds may retard the rebuilding of flocks and delay the restoration of egg supplies.

Estimates of flush-season egg surpluses in the United States in the spring of 1946 run as high as 20,000,000 cases. Balanced against this is the deficit of 3,000,000 to 4,000,000 cases in the United Kingdom, and a large potential demand in western Europe. With eggs selling for $2.50 per dozen in Belgium and feeds continuing to be in short supply, shell eggs will be sought wherever supplies become available. The extent to which supplies may move to the United Kingdom or to other European countries will depend upon future financial and trade arrangement. United States occupation troops in Europe and the Far East will likely be heavier consumers per man, especially of shell eggs, because of available shipping and noncombat feeding conditions. Cuba and Mexico will likely take a few hundred thousand cases.

In the end, however, the balance in the United States of demand against production will depend more upon domestic consumption than demand for exports. A shift in annual consumption of about 25 eggs per capita involves 10,000,000 cases. Thus, exportable supplies can easily dwindle or increase depending upon buying power or availability of competing foods.